#### **QUANTAR®**

#### **General Information**

This range of product is ordered by using several different pages of information depending on the application. Each page has links to take you through to a following page or bring you back to this one which has a link to every page in the set. Not all applications are available for each station type. If you follow the links in a logical sequence, you will only be guided through valid options for that application.

You can start here and work through the order in a logical sequence following the appropriate links. Alternatively, you can choose the page from the navigation map below. Every page in the set has links forward and links back to here. General features are included on this page.

Station configuration depends upon band and power selection. The following configurations are available.

	VHF	UHF	UHF			800	900
	Range 0 Range 1 and 2 Range 3 Range 4		800	900			
QUANTAR	25W 125W	110W	10W 25W	110W	100W	20W 100W	100W
"Limited" QUANTAR				110W	100W		
QUANTAR Data Base Station			25W 110W	110W	100W	20W 100W	100W
QUANTAR	Rx only		Rx only	Rx only	Rx only	Rx only	Rx only
ASTRO-TAC® Receiver	Rx only		Rx only	Rx only	Rx only	Rx only	Rx only

Software downloads with Ethernet capability is a standard feature. PLEASE CONSULT THE QUANTAR PRODUCT PLANNER FOR MORE INFORMATION.

To use Ethernet capability on Conventional or 6809 Trunked Stations, Ethernet Service Kit (REX4430) is required.

#### **ASTRO® CONVENTIONAL BASE STATIONS AND REPEATERS**

The radio can only be configured to pass Analog and ASTRO Digital (ASTRO 9.6 kb mode), or Analog alone at one time. Mode or toggle changes are accomplished via Radio Service Software (RSS). The ASTRO QUANTAR can only be configured as transparent. Encode/decode is not available. ASTRO remote control operations require a 9.6 kbps ASTRO modem (X437). ASTRO QUANTAR is not available in 900MHz.

#### ANALOG CONVENTIONAL, ASTRO CONVENTIONAL BASE STATIONS AND REPEATERS

The radio provides wireline control, remote station alarms (via wireline and over the air) and a single stage circulator. Up to 16 transmit and receive frequencies, as well as the communication channel functions of coded squelch (PL or DPL), variable time-out-timer, push to talk priority, repeater drop out delay, and Base Station ID are included as standard. These features ship in a preset condition, but may be altered through the use of RSS. Base stations require an antenna relay (X371). If the station is ordered as a repeater, it will support either 2 antenna connectors, or 1 connector if a duplex filtering option is ordered.

For VHF and UHF base stations, transmit frequencies can be separated by the full frequency sub-band selected, and receive frequencies can be separated up to 4.0MHz without degradation of specifications. For repeater operation, transmit and receive frequencies can be separated by as little as 1.5MHz with the addition of a Duplexer (X182). The duplexer will be factory tuned for single frequency operation only.

INTELLIREPEATER® capability is intended for a SmartZone® Trunking remote site system where the INTELLIREPEATER performs site resource management and directs call processing activities at the site via the SmartZone controller.

#### **QUANTAR RECEIVERS**

The receiver provides wireline control and remote station alarms (via wireline). The receiver is also capable of the communications channel functions of coded squelch (PL or DPL). These features ship in a preset condition, but may be altered through the use of RSS.

The ASTRO receiver ships with the ASTRO transparency feature turned on. A 9.6 kbps ASTRO modem (X437) is required for wireline operation if the receiver is configured as ASTRO transparent.

Guard tone frequency of the wireline TRC connection can be programmed with RSS. Valid frequencies are from 1900 to 3000MHz. Not compatible with DC Remote Control (C101) or ASTRO® Conventional (X599).

The ASTRO Trunking (X989) provides 9.6 kbps. The ASTRO receiver can only be configured as transparent. Encode/decode is not available. ASTRO® remote control operations require V.24 ASTRO Wireline Interface (X889) on the QUANTAR Receiver.

The Conventional ASTRO (X599) provides 9.6 kbps. The ASTRO receiver can only be configured as transparent. Encode/decode is not available. ASTRO remote control operations require a 9.6 kbps ASTRO modem ( X437).

#### **ASTRO-TAC RECEIVERS**

The receiver provides wireline control and remote receiver alarms (via wireline). The receiver is also capable of up to 16 receive frequencies, as well as the communications channel functions of coded squelch (PL or DPL). These features ship in a preset condition, but may be altered through the use of RSS. For VHF and UHF receivers, the receive frequencies can be separated by up to 4.0MHz without degradation of specifications.

The ASTRO receiver ships with the ASTRO transparency feature turned on. A 9.6 kbps ASTRO modem (X437) is required for conventional ASTRO wireline operation if the receiver is configured as ASTRO transparent.

Guard tone frequency of the wireline TRC connection can be programmed with RSS. Valid frequencies are from 1900 to 3000MHz. Not compatible with DC Remote Control (C101).

The Conventional ASTRO (X599) provides 9.6 kbps transparency capabilities. Mode or toggle changes are accomplished via RSS. The ASTRO receiver can only be configured as transparent. Encode/decode is not available. ASTRO remote operations require a 9.6 kbps ASTRO modem (X437).

The ASTRO Trunking (X989) provides both 9.6 kbps and 12 kbps transparency capabilities. Encode/decode is not available. ASTRO remote control operations utilize V.24 ASTRO Wireline Interface (X889) a standard feature on the ASTRO-TAC Receiver.

#### **Features**

#### **BASIC QUANTAR PACKAGE INCLUDES**

- 25, 100, 110 & 125W QUANTAR are housed in 12"H X 22"W X 20"D Indoor Cabinets
- QUANTAR utilizes a switching power supply (90-264 VAC, 47-63 HZ)
- Continuous Duty Cycle Operation
- External Reference Capability
- Functional Manual

- Tone Remote Control Standard
- Single Circulator (6, 25, 35, 40, 75, 100, 110, 125, 150 & 225 Watt Stations)
- 4 Wire Audio
- 1 PPM Frequency Stability (All bands)
- Two Type "N" Female Antenna Connectors
- Synthesized Frequency Generation

#### **BASIC QUANTAR DATA BASE STATION PACKAGE INCLUDES**

- One Transmit and Receive Frequency
- Switching Power Supply (90-264 VAC, 47-63 Hz.)
- Radio Signal Strength Indicator (RSSI)
- Continuous Duty-Cycle Operation
- Functional Manual

- Single Stage Circulator
- Synthesized Frequency Generation with 1 ppm Frequency Stability
- Two Type N Female Antenna Connectors
- Base Station ID

#### **BASIC QUANTAR RECEIVER PACKAGE INCLUDES**

- QUANTAR Satellite receivers are housed in 12"H X 22"W X 20"D Indoor Cabinets
- Utilizes a switching power supply (90-264 VAC, 47-63 Hz.)
- Tone Remote Control Only
- Continuous Duty Cycle Operation

- Synthesized Frequency Generation
- 4 Wire Audio
- 1 PPM Frequency Stability (All bands)
- External Reference Capability
- Function Manual
- Type "N" Female Antenna Connector

#### **BASIC ASTRO-TAC® RECEIVER PACKAGE INCLUDES**

- ASTRO-TAC Receiver ships with the hardware required for cabinet mounting
- Utilizes a switching power supply (90-264 VAC, 47-63 Hz.)
- Tone Remote Control Only
- 1 PPM Frequency Stability (All bands)
- Battery Revert (Battery Charging must be externally supplied)

- ASTRO W/L Interface V.24
- Synthesized Frequency Generation
- 4 Wire Audio
- Type "N" Female Antenna Connector
- External Reference Capability
- Functional Manual

# **Ordering Requirements**

Step 1 - REQUIRED Must select station type from one of the following links:

- QUANTAR Conventional/6809 Trunked/INTELLIREPEATER® Radio Systems VHF, UHF, 800MHz and 900MHz Bands
- "Limited" QUANTAR Conventional Analog Only Radio Systems UHF Only (470 - 594 and 494 -520 MHz.)
   Limited QUANTAR® is not available for Asia-Pac markets.
- QUANTAR with High Power Booster Amplifier VHF Range 2, 800MHz
   (QUANTRO has been cancelled. The QUANTAR High Power Booster AMP. Will provide a high power solution for VHF R2 & 800MHz.)
- QUANTAR Data Base Station For Private DataTAC Systems
- QUANTAR Receiver Conventional/6809 Trunked VHF, UHF, 800MHz and 900MHz Bands
- <u>ASTRO-TAC Receiver</u> Conventional/6809 Trunked VHF, UHF, 800MHz and 900MHz Bands

Step 2 - REQUIRED Must select application from one of the following links:

- Conventional operation
- 6809 Trunking
- INTELLIREPEATER Trunking

- 2.7 INTELLIREPEATER Trunking
- Step 3 OPTIONAL Then select Cabinet and Rack options
- Step 4 OPTIONAL Then select General options
- Step 5 OPTIONAL Select Spares, FRUs, Kits and Accessories
- Step 6 OPTIONAL Select Radio Service Software (RSS)

## **Product Catalog Sheets**

FCC information can be found on the catalog sheets.

QUANTAR VHF Catalog Sheet
QUANTAR UHF Station Catalog Sheet
QUANTAR 900MHz Station/Repeater Catalog Sheet
QUANTAR 800MHz Station/Repeater Catalog Sheet
"Limited" QUANTAR Catalog Sheet
QUANTAR Data Base Station UHF Catalog Sheet
QUANTAR Data Base Station 800/900MHz Catalog Sheet

#### **FCC Information**

#### ALL ITEMS REQUIRE AN EXPORT LICENSE TO BE EXPORTED FROM THE UNITED STATES/CANADA

ASTRO-TAC® Receiver VHF, UHF, 800MHz, and 900MHz Bands

#### **General Information**

The following options are available on ASTRO-TAC® Receivers.

NOT FOR: QUANTAR®, "Limited" QUANTAR, QUANTAR Data Base Stations, or QUANTAR Receiver.

#### **BASIC ASTRO-TAC® RECEIVER PACKAGE INCLUDES**

- ASTRO-TAC® Receiver ships with the hardware required for cabinet mounting
- Utilizes a switching power supply (90-264 VAC, 47-63 Hz.)
- Tone Remote Control Only
- 1 PPM Frequency Stability (All bands)
- Functional Manual

- ASTRO® W/L Interface V.24
- Synthesized Frequency Generation
- 4 Wire Audio
- Type "N" Female Antenna Connector
- External Reference Capability
- Battery Revert (Battery Charging must be externally supplied)

ALL STATIONS SHIP UNCONFIGURED, AND MUST BE FIELD PROGRAMMED with the Radio Service Software (RSS) to alter the Communication Channel functions and to input the Transmit and Receive Frequencies within the specified range selected. The sales person is responsible for this information and should forward it to the field programmer or service shop. Radio Service Software (RSS) is not shipped with the station, order from Aftermarket and Accessories Division. (1-800-422-4210)

Please see the Product Planner for full descriptions of each option.

## **Ordering Requirements**

You MUST select a frequency by option.

- VHF (X319)
- UHF (X320)
- 800MHz (X600)
- 900MHz (X663)
- VHF RX RG-1 (X326)

Specify one receive frequency for factory tuning. Exact customer frequencies are programmed in the field. If the frequencies are not accurate, retuning may be required in the field.

You MUST select a System Family Option. Choose the appropriate suffix in COF for ASTRO-TAC®.

- Conventional (X597, X599, or X806 F)
- 6809 Trunking Single Site (X997 C)
- 6809 Trunking Wide Area (X897 C)

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Description	Nomenclature	APC	Price
ASTRO TAC SATELLITE RECEIVER	T5589	743	\$2,900.00
ALL orders MLIST list the Radio Model as a Main-Line item			

# **Options**

Frequency	Band	(S)
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Description	Nomenclature	APC	Price
ADD: RECEIVER, VHF	X319	509	\$1,375.00
MUST Select a frequency by option. Specify 1 receive frequency for factory tuning. 132-154MHz or 150-174MHz. Compatible with T5367 and T5589			
ADD: RCVR SATELLITE 403-433/450-512	X320	509	\$1,485.00
MUST Select a frequency by option. Specify 1 receive frequency for factory tuning. 403-433MHz, or 430-470MHz, or 470-49 MHz, or 494-512MHz. Compatible with T5367 and T5589			
ADD: RECEIVER, SATELLITE, 800 MHZ	X600	509	\$1,595.00
MUST Select a frequency by option. Specify 1 receive frequency for factory tuning.806-825MHz. Compatible with T5367 and T5589			
ADD: RECEIVER 900MHZ	X663	509	\$1,705.00
MUST Select a frequency by option. Specify 1 receive frequency for factory tuning.Compatible ONLY with T5589-ASTRO-TAC Receiver ONLY			
ALT: RX FREQUENCIES RG 1 (132-154)	X326	509	\$0.00
132-154 MHz MUST Select a Frequency by Option. Specify 1 Receive frequency for factory tuning.  COMPATIBLE with T5367 and T5589. Use when Rx frequencies fall between 150-154 MHz and the lower frequency range is desired. If the transmit or receive frequency is between 150.0MHz-154.0MHz, the upper band (150-174MHz) transmitter and/or receiver will be supplied. If a 132-154MHz transmitter is required, ORDER this option.			

#### **Conventional System Family**

ENH: CONVENTIONAL RECEIVER	X597	677	\$600.00

Description	Nomenclature	APC	Price
ENH: ASTRO CONVENTIONAL RECEIVER	X599	743	\$1,200.00
Compatible with T5367 and T5589. Not compatible with option X663			
ENH: CONV ASTRO CAI OPER RCVR	X806 F	743	\$1,320.00
MUST Select a System Family. Compatible with T5367 & T5589. NOT COMPATIBLE with			

6809 Trunking Single Site

Description **Nomenclature APC Price** ENH: RECEIVER ONLY 6809 CONTROLLER X997 C 225 \$660.00

MUST order System Family 6809 Trunking Single Site Compatible w/T5367 & T5589 and **NOT X663** 

X663 Receiver 900MHz

6809 Trunking WIDE Area

Description Nomenclature **APC Price** X897 C 360 \$1,380.00 ENH: SZ6809 ASTR CAI TRK RCVR

MUST Select a System Family. 6809 Trunking WIDE Area. Compatible with T5367 and T5589. NOT COMPATIBLE with X663 Receiver 900MHz

Now proceed to select Conventional or 6809 Trunking, options or return to QUANTAR® General Information.

Data Compiled 02-Sep-2003 using DUP and all prices in USD

## **QUANTAR®** VHF, UHF, 800, and 900MHz Bands

#### **General Information**

The following options are available on QUANTAR but not for "Limited" QUANTAR, QUANTAR Data Base Stations, QUANTAR Receiver, or ASTRO-TAC® Receiver.

#### **BASIC QUANTAR PACKAGE INCLUDES**

- 25, 100, 110 & 125W QUANTAR's are housed in 12"H X 22"W X 20"D Indoor Cabinets
- QUANTAR utilizes a switching power supply (90-264 VAC, 47-63 HZ)
- Continuous Duty Cycle Operation
- **External Reference Capability**
- **Functional Manual**

- Tone Remote Control Standard
- Single Circulator (6, 25, 35, 40, 75, 100, 110, 125, 150 & 225 Watt Stations)
- 4 Wire Audio
- 1 PPM Frequency Stability (All bands)
- Two Type "N" Female Antenna Connectors
- Synthesized Frequency Generation

ALL STATIONS SHIP UNCONFIGURED, AND MUST BE FIELD PROGRAMMED with the Radio Service Software (RSS) to alter the Communication Channel functions and to input the Transmit and Receive Frequencies within the specified range selected. The sales person is responsible for this information and should forward it to the field programmer or service shop. Radio Service Software (RSS) is not shipped with the station, order from Aftermarket and Accessories Division. (1-800-422-4210).

SmartZone® OmniLink™ allows a customer to link multiple SmartZone systems into a single, wide area trunking system. SmartZone OmniLink supports Analog, ASTRO Digital CAI, and Mixed Mode (Analog/Digital) system configurations including simulcast subsystems.

ASTRO® Digital VSELP operation is NOT supported by SmartZone OmniLink.

Please see the Product Planner for full descriptions of each option.

## **Ordering Requirements**

You MUST select a frequency by option. The station configuration, QUANTAR will be determined by this option

- VHF 132-174MHz 25W (X330)
- VHF 132-174MHz 125W (X530)
- VHF Tx RG 1 132-154MHz (X325)
- VHF Rx RG 1 132-154MHz (X326)
- UHF 403-433/438-470MHz 25W(X240)
- UHF 380-433/438-470MHz or 470-494MHz 110-25W(X640)
- UHF 494-512MHz 100-25W(X640)
- 800MHz 806-825MHz /Tx 851-870MHz 20W(X250)
- 800MHz 806-825MHz /Tx 851-870MHz 100-20W(X750)
- 900MHz 896-902MHz/Tx 935-941MHz 100W (X660)

Specify one transmit and one receive frequency for factory tuning. Exact customer frequencies are programmed in the field. If the frequencies are not accurate, retuning may be required in the field.

You MUST select a System Family Option. Choose the appropriate suffix in COF for QUANTAR.

- Conventional (X597A, X599 A, or X806 D)
- 6809 Trunking Single Site (X997 A, or X900 A)
- 6809 Trunking Wide Area (X989 D & X897 A)
- INTELLIREPEATER® Trunking (X591AA, X999 C, X990 A, X898 A, & CA00117AA)

#### Radio Model

Description	Nomenclature	APC	Price
QUANTAR FAMILY MODEL	T5365	509	\$7,115.00
ALL ORDERS MUST LIST THE RADIO MODEL (T5365) AS A MAIN LINE ITEM.			

#### **Options**

Frequency Band (s)

Description	Nomenclature	APC	Price
ADD: 25W QUANTAR, VHF (132-174MHZ)	X330	509	\$2,987.00
ADD: 125W QUANTAR, VHF (132-174MHZ)	X530	509	\$4,197.00
ALT: TX FREQUENCIES RG 1 (132-154)	X325	509	\$0.00

X326

509

\$0.00

If the transmit or receive frequency is between 150.0MHz-154.0MHz, the upper band (150-174MHz) transmitter and/or receiver will be supplied. If a 132-154MHz transmitter is required. ORDER this option.

	(FREQUENCIES RG 1 (132-154)
132-154 MHz MUST Select a Frequency by Option. Specify 1 Receive frequency for factory	Hz MUST Select a Frequency by Option. Specify 1 Receive frequency for factory

COMPATIBLE with T5367 and T5589. Use when Rx frequencies fall between 150-154 MHz and the lower frequency range is desired. If the transmit or receive frequency is between 150.0MHz-154.0MHz, the upper band (150-174MHz) transmitter and/or receiver will be supplied. If a 132-154MHz transmitter is required, ORDER this option.

ADD: UHF 25W PA RANGE 1 OR 2	X240	509	\$3,757.00
ENH: UHF(403-433/438-470 OR 470-494 MHZ 110-25W) 494-512	X640	509	\$5,616.00
100-25W			

ADD: 800 20W PA X250 509 \$3,649.00

ADD: 800 MHZ BAND RX 806-825 MHZ/TX 851-870 MHZ, 100-20 WATTS	X750	509	\$6,314.00
ADD: 900MHZ 100 WATT QUANTAR	X660	509	\$7,623.00
900MHz stations are available only with Analog Operations.			

#### System Family (s)

Description	Nomenclature	APC	Price
EHN: ASTRO 25 SITE REPEATER	X591AA	509	\$7,400.00
REQUIRES CA00255; Upgrade from 6.0 to 6.1 systems ONLY. Not COMPATIBLE with QUANTRO stations.			
Description	Nomenclature	APC	Price
ENH: CONVENTIONAL ANALOG OPERATION  Not available in Asia-Pac market.	X597 A	448	\$1,050.00
ENH: CONVENTIONAL ASTRO VSELP OPERATION	X599 A	509	\$2,750.00
Not available in Asia-Pac market.	Intent to	<b>Cancel Date:</b>	30-Jun-2003
ENH: CONV ASTRO CAI OPER QTQR	X806 D	509	\$3,025.00
ENH: QUANTAR 6809 TRUNKING OPERATION 6809 Trunking Single Site Not available in Asia-Pac market.	X997 A	225	\$1,150.00
ENH: 6809 ASTRO CAI TRKG QTAR 6809 Trunking Single Site.	X900 A	360	\$3,160.00
ENH: SMARTZONE 6809 ASTRO VSELP TRUNKING OPERATION	X989 D	590	\$2,750.00
6809 Trunking WIDE Area. Not available in Asia-Pac market.	Intent to	<b>Cancel Date:</b>	30-Jun-2003
ENH: SZ6809 ASTR CAI TRK QTAR	X897 A	590	\$3,160.00
6809 Trunking WIDE Area			
ENH: QUANTAR SZONE INTELLIRPTR	X999 C	675	\$5,800.00
INTELLIREPEATER Trunking Not available in Asia-Pac market.			
ENH: SMARTZONE ASTRO VSELP INTELLIREPEATER OPERATION	X990 A	537	\$6,800.00
INTELLIREPEATER Trunking Not available in Asia-Pac market.	Intent to	Cancel Date:	30-Jun-2003
ENH: SZ IR ASTRO CAI QTAR	X898 A	537	\$6,650.00
INTELLIREPEATER Trunking			
ENH: CONVENTIONAL ASTRO VSELP OPERATION	X599 A	509	\$2,750.00
Not available in Asia-Pac market.	Intent to	<b>Cancel Date:</b>	30-Jun-2003
ENH: ASTRO 25 PACKET IR QTAR INTELLIREPEATER Trunking	CA00117AA	509	\$7,400.00

Now proceed to select <u>Conventional</u>, <u>6809 trunking</u>, <u>INTELLIREPEATER®</u> or <u>2.7 INTELLIREPEATER®</u> options or return to <u>QUANTAR General Information</u>.

Data Compiled 02-Sep-2003 using DUP and all prices in USD

# QUANTAR® Data Base Station 800 and 900MHz Bands For Private DataTAC® Systems

#### **General Information**

ATTENTION NORTH AMERICA CUSTOMERS: IF YOU ARE ORDERING A UHF DATA BASE STATION, PLEASE REFER TO QUANTAR® Data Base Station and ASTRO-TAC® Receiver PRODUCT PAGE.

NOT FOR: QUANTAR, "Limited" QUANTAR, QUANTAR Receiver or ASTRO-TAC Receiver.

#### **BASIC QUANTAR DATA BASE STATION PACKAGE INCLUDES**

- One Transmit and Receive Frequency
- Switching Power Supply (90-264 VAC, 47-63 Hz.)
- Radio Signal Strength Indicator (RSSI)
- Continuous Duty-Cycle Operation
- Functional Manual

- Single Stage Circulator
- Synthesized Frequency Generation with 1 ppm Frequency Stability
- Two Type N Female Antenna Connectors
- Base Station ID

## **Ordering Requirements**

- 1. List the Radio Model as a Main line item.
- 2. Select a power level by option. The station configuration will be determined by this option.
  - Specify one transmit and one receive frequency for factory tuning.
  - Exact customer frequencies are programmed in the field. If the frequencies are not accurate, retuning may be required in the field.
- 3. **Select** the System Family Option.
- 4. **Select** a protocol option.
- 5. **Select** a remote control option.
- 6. **Select** a modem listed below.
- 7. **Proceed** to the Cabinet & Rack Option page to order a rack.
  - o The Data Base Station requires at least a 30" cabinet or rack.

ALL STATIONS SHIP UNCONFIGURED, AND MUST BE FIELD PROGRAMMED with the Radio Service Software (RSS) to alter the Communication Channel functions and to input the Transmit and Receive Frequencies within the specified range selected. The sales person is responsible for this information and should forward it to the field programmer or service shop. Radio Service Software (RSS) is not shipped with the station, order from Aftermarket and Accessories Division. Please see the Product Planner for full descriptions of each option.

#### Radio Model

Description	Nomenclature	APC	Price
QUANTAR FAMILY MODEL	T5365	509	\$7,115.00
ALL ORDERS MUST LIST THE RADIO MODEL (T5365) AS A MAINLINE ITEM			

#### **Options**

#### **Power and Frequency Band**

Description	Nomenclature	APC	Price
ADD: 800 20W PA	X250	509	\$3,649.00
ADD: 800 MHZ BAND RX 806-825 MHZ/TX 851-870 MHZ, 100-20 WATTS	X750	509	\$6,314.00
ADD: 900MHZ 100 WATT QUANTAR	X660	509	\$7,623.00

900MHz stations are available only with Analog Operations.

#### System Family

Description Nomenclature APC Price

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Protocol Options			
Description	Nomenclature	APC	Price
ENH: RD-LAP 19.2 AIR PROTOCOL	X39	680	\$1,000.00
ENH: RD-LAP 9.6 AIR PROTOCOL	X799	680	\$1,000.00
Remote Control			
Description	Nomenclature	APC	Price
DEL: WIRELINE, QUANTAR STN	X84	509	(\$500.00)
Stand alone repeater operations. NOT COMPATBILE with: T5589 ASTRO-TAC Receiver			
Modem			
Description	Nomenclature	APC	Price
DC-POWER MODEM (DOMESTICS), INCLUDES DATA CABLES	DLN1085	680	\$1,150.00
These modems are the only modems tested and certified for use with this product. For International, order approved modem from International Dropship.			

X399 C

DLN1086

680

680

\$350.00

\$495.00

Now proceed to Select a Cabinet & Rack Option or return to QUANTAR General Information.

Data Compiled 02-Sep-2003 using DUP and all prices in USD

International, order approved modem from International Dropship.

These modems are the only modems tested and certified for use with this product. For

MODEM SHELF FRU

ADD: DATA BASE STATION OPER

# QUANTAR® Data Base Station and ASTRO-TAC Receiver UHF only For Private DataTAC® Systems

#### **General Information**

NOTE: This applies ONLY to North America customers. This does not apply to other regions.

When ordering a UHF Data Base Station (DBS), an ASTRO-TAC receiver must also be ordered. The second external receiver is required to enable monitoring of the channel for voice activity in a system where exclusive use of the channel is not provided by the FCC. The UHF DBS will be inhibited from transmitting data until the channel is deemed clear of voice activity by the ASTRO-TAC Receiver. When ordered in combination, as per the below ordering instructions, the units will be specially tested together in the factory and special pricing allowances will be provided. For field upgrades to existing UHF DBS, contact the Infrastructure Business Team. You must complete both Steps 1 and 2 below.

#### **Ordering Requirements**

#### 1. Order the UHF Data Base Station

- 1.1. List the Radio Model T5365 as the Main line item.
- 1.2. Select a power and frequency band, X240 or X640. The station configuration will be determined by this

option.

Description

**UHF CO-CHANNEL MONITOR** 

- 1.2.1. Specify one transmit and one receive frequency for factory tuning.
- 1.2.2. Exact customer frequencies are programmed in the field. If the frequencies are not accurate, retuning may be required in the field.
- 1.3. **Select** the System Family Option X399.
- 1.4. **Select** the Co-Channel Monitor option X412AA. This option will generate the hardware and instruction manual necessary for interface with the 2<sup>nd</sup> receiver.
- 1.5. **Select** the optional Two Receiver Coupler C653, if necessary.
- 1.6. Select a protocol option.
- 1.7. **Select** the remote control option.
- 1.8. Select a modem listed below.
- 1.9. **Proceed** to the Cabinet & Rack Option page to order a rack.
  - 1.9.1. The Data Base Station requires at least a 30" cabinet or rack.

ALL STATIONS SHIP UNCONFIGURED, AND MUST BE FIELD PROGRAMMED with the Radio Service Software (RSS) version R12.02.00 to alter the Communication Channel functions and to input the Transmit and Receive Frequencies within the specified range selected. The sales person is responsible for this information and should forward it to the field programmer or service shop. Radio Service Software (RSS) is not shipped with the station, order from Aftermarket and Accessories Division. Please see the Product Planner for full descriptions of each option.

	Radio Models			
Nomenclature	APC	Price		
T5365	509	\$7,115.00		
Band				
Nomenclature	APC	Price		
X240	509	\$3,757.00		
X640	509	\$5,616.00		
Nomenclature	APC	Price		
X399 C	680	\$350.00		
	T5365  Band  Nomenclature  X240  X640  Nomenclature	T5365 509  Band  Nomenclature APC		

**Nomenclature** 

X412AA

**APC** 

680

**Price** 

(\$1,000.00)

ADD: 2-RCVR CPLR, RPTR C653CASP 509 \$350.00

Passive two-receiver coupler to provide a signal path for the DBS and the ASTRO-TAC receiver

Needed if only one antenna is available at the site and/or there is no open port available on a multicoupler.

#### **Protocol Options**

Description	Nomenclature	APC	Price
ENH: RD-LAP 19.2 AIR PROTOCOL	X39	680	\$1,000.00
ENH: RD-LAP 9.6 AIR PROTOCOL	X799	680	\$1,000.00

#### **Remote Control**

Description	Nomenclature	APC	Price
DEL: WIRELINE, QUANTAR STN	X84	509	(\$500.00)

Stand alone repeater operations. NOT COMPATBILE with: T5589 ASTRO-TAC Receiver

#### **Modems**

Description	Nomenclature	APC	Price
DC-POWER MODEM (DOMESTICS), INCLUDES DATA CABLES	DLN1085	680	\$1,150.00
These modems are the only modems tested and certified for use with this product. For International, order approved modem from International Dropship.			
MODEM SHELF FRU	DLN1086	680	\$495.00
These modems are the only modems tested and certified for use with this product. For			

Now proceed to Select a Cabinet & Rack Option or return to QUANTAR® General Information

#### **ASTRO-TAC Receiver**

#### **Ordering Requirements**

#### 2. Order the ASTRO-TAC Receiver

International, order approved modem from International Dropship.

- 2.1 List the Radio Model T5589 as the Main line item.
- 2.2 You MUST select the UHF frequency option, X320.
  - 2.2.1 Specify one receive frequency for factory tuning. Exact customer frequencies are programmed in the field. If the frequencies are not accurate, retuning may be required in the field.
- 2.3 You MUST select the Conventional System Family Option, X597.
- 2.4 You MUST ALSO select the Co-Channel Monitor option X412AB.

#### Radio Model

Description	Nomenclature	APC	Price
ASTRO TAC SATELLITE RECEIVER	T5589	743	\$2,900.00

### **Options**

#### Frequency Band (s)

 Description
 Nomenclature
 APC
 Price

 ADD: RCVR SATELLITE 403-433/450-512
 X320
 509
 \$1,485.00

MUST Select a frequency by option. Specify 1 receive frequency for factory tuning. 403-433MHz, or 430-470MHz, or 470-49 MHz, or 494-512MHz. Compatible with T5367 and

T5589

#### **Conventional System Family**

ENH: CONVENTIONAL RECEIVER X597 677 \$600.00

MUST order a System Family Compatible w/T5367 & T5589

#### 6809 Trunking Single Site

ADD: UHF CO-CHANNEL MONITOR X412AB 743 (\$1,000.00)

Now proceed to select Conventional or 6809 Trunking, options or return to QUANTAR® General Information.

Data Compiled 02-Sep-2003 using DUP and all prices in USD

# QUANTAR® With High Power Booster Amplifier VHF, 800MHz

#### Radio Model

ALL STATIONS SHIP UNCONFIGURED NEED TO BE FIELD PROGRAMMED with Radio Service Software (RSS). RSS is required to alter the Communication Channel functions and to input the Transmit and Receive Frequencies with in the specified range selected. The sales person is responsible for this information and should forward it to the field programmer or service shop. RSS is not shipped with the station, order from Aftermarket and Accessories Division (AAD) 1-800-422-4210.

DescriptionNomenclatureAPCPriceQUANTAR FAMILY MODELT5365509\$7,115.00

ALL ORDERS MUST LIST THE RADIO MODEL (T5365) AS A MAIN LINE ITEM.

# **Power and Frequency Band Options**

You must order the following power level options, depending on band. The station configuration will be determined by these options. Specify one transmit and one receive frequency for factory tuning. Exact customer frequencies are programmed in the field. If the frequencies are not accurate, retuning may be required in the field.

The High Power Booster Amplifier ships as a separate component that is racked with the QUANTAR® station.

#### VHF BAND 150-174MHz

DescriptionNomenclatureAPCPriceADD: HPB VHF 350 WATT RANGE 2CA00052AB509\$12,517.00

INCLUDES 46" cabinet option X308 and initial power option X330.

#### 800MHz BAND Rx 806-825 MHz/Tx 851-870MHz

 Description
 Nomenclature
 APC
 Price

 ADD: HPB 800MHZ 150 WATT
 CA00116AA
 509
 \$12,614.00

Includes 46" cabinet option X308 and initial power option X250.

# **System Family Options**

YOU MUST SELECT ONE. Choose the appropriate suffix in COF for QUANTAR®.

#### **CONVENTIONAL**

Description	Nomeno	clature APC Price
ENH: CONVENTIONAL ANALOG OPERATION  Not available in Asia-Pac market.	X597 A	448 \$1,050.00
ENH: CONVENTIONAL ASTRO VSELP OPERATION  Not available in Asia-Pac market.	X599 A	509 \$2,750.00 Intent to Cancel Date: 30-Jun-2003
ENH: CONV ASTRO CAI OPER QTQR	X806 D	509 \$3,025.00
	71000 2	φο,σ=σ.σσ
6809 TRUNKING SINGL	E SITE	
ENH: QUANTAR 6809 TRUNKING OPERATION 6809 Trunking Single Site Not available in Asia-Pac market.	X997 A	225 \$1,150.00
ENH: 6809 ASTRO CAI TRKG QTAR 6809 Trunking Single Site.	X900 A	360 \$3,160.00
6809 TRUNKING WIDE	ARFA	
ENH: SMARTZONE 6809 ASTRO VSELP TRUNKING OPERATION	X989 D	590 \$2,750.00
6809 Trunking WIDE Area. Not available in Asia-Pac market.		Intent to Cancel Date: 30-Jun-2003
ENH: SZ6809 ASTR CAI TRK QTAR 6809 Trunking WIDE Area	X897 A	590 \$3,160.00
INTELLIREPEATER® TRU	JNKING	
ENH: QUANTAR SZONE INTELLIRPTR	X999 C	675 \$5,800.00
INTELLIREPEATER Trunking Not available in Asia-Pac market.		
ENH: SMARTZONE ASTRO VSELP INTELLIREPEATER OPERATION	X990 A	537 \$6,800.00
INTELLIREPEATER Trunking Not available in Asia-Pac market.		Intent to Cancel Date: 30-Jun-2003
ENH: SZ IR ASTRO CAI QTAR	X898 A	537 \$6,650.00
INTELLIREPEATER Trunking		\$2.1 \$2.000.00

SmartZone® OmniLink™ allows a customer to link multiple SmartZone® systems into a single, wide area trunking system. SmartZone® OmniLink™ supports Analog, ASTRO® Digital (CAI) and Mixed Mode (Analog/Digital) system configurations including simulcast subsystems. ASTRO® Digital VSELP operation is NOT supported by SmartZone® OmniLink™.

# **Rack and Cabinet Options**

The High Power Booster option is compatible with the following:

Description	Nomenclature	APC	Price
ADD: RACK 7' QTR HPB	X832AF	509	\$470.00
ADD: RACK 7.5' QTR HPB	X882AF	509	\$495.00
ADD: RACK 8' QTR HPB	X810AH	509	\$520.00

#### **MODULAR RACKS**

Description	Nomenclature	APC	Price
ADD: 30" MODULAR RACK (16RU)	X741AH	509	\$200.00
ADD: 45" MODULAR RACK (24RU)	X742AG	509	\$225.00
ADD: 52" MODULAR RACK (27 RU)	X743AG	509	\$250.00

#### **CABINETS**

Description	Nomenclature	APC	Price
ADD: CABINET, 60" INDOOR HPB	X180AG	509	\$880.00
ADD: HPB OUTDOOR CABINET 70"	X36AF	509	\$2,260,00

#### **POWER SUPPLY**

Description	Nomenclature	APC	Price
120V AC POWER STRIP 4 OUTLET	X407AA	509	\$75.00

3 cords to 1 power strip. ONLY for High Power Booster AMP--(CA00052 and CA00116).

ATTENTION: Installer or User is responsible for compliance with applicable codes or regulations governing use of power strips as permanently mounted devices.

Go to Cabinet and Rack options for ordering information.

Now proceed to select <u>Conventional</u>, <u>6809 trunking</u>, <u>INTELLIREPEATER®</u> or <u>2.7 INTELLIREPEATER®</u> options or return to <u>QUANTAR®</u> <u>General Information</u>.

# **Options Incompatibilities**

- 1. Frequency overlap options: X325 Tx Frequency Ranges (132-154), X326 Rx Frequency Ranges (132-154), X327 circulator and duplexer low range VHF.
- 2. Other incompatibilities: U453 Fast Key-up, X182 Factory installed duplexer not compatible with VHF option CA00052.

Data Compiled 02-Sep-2003 using DUP and all prices in USD

# "Limited" QUANTAR® UHF Band ONLY

#### **General Information**

The following options are available on "Limited" QUANTAR.

NOT FOR: QUANTAR, QUANTAR Data Base Stations, QUANTAR Receiver, or ASTRO-TAC® Receiver.

- 1. "Limited" QUANTAR Stations can only be used within a Conventional/Analog radio system.
- 2. "Limited" QUANTAR Station's operation is only offered in two UHF frequency bands: 470 494MHz with a 110 Watt PA (CA00018AA) or 494 520 MHz. with a 100 Watt PA (CA00019AA).
- 3. "Limited" QUANTAR Station is Non-Upgradeable (NOT FLASHport® Capable) to ASTRO®, Trunking, Simulcast, or SmartZone®.
- "Limited" QUANTAR Stations are only compatible with the following options: X580, X622, X597, X182, X371, X84, C101, X286, X425, X233, X157, X30, X112, X113, X676, U752, X432, X287, X52, X308, X180, X36, X87, X374, X375, X376, X377, X380, X381, X382, X383, X379, X741, X742, X832, X882, X810 and X153.
- "Limited" QUANTAR Stations are not compatible with the following options:
   X148, X844, X932, U453, C457, C753, X312, X322, X323, X324, C115, X337, X338, X339, X777, X888, U764, X144, X269, X122, X149, X150, X8433, X814, X145, X146, X147, X325, X326, X327, X121, C28, C32, C681, C257, X873, X394, X696, X139, X288, X889, X598, X599, X806, X997, X996, X992, X900, X989, X897, X999, X998, X990 and X898.
- 6. "Limited" QUANTAR Stations are not compatible with trunked options.

ALL STATIONS SHIP UNCONFIGURED, AND MUST BE FIELD PROGRAMMED with the Radio Service Software (RSS) to alter the Communication Channel functions and to input the Transmit and Receive Frequencies within the specified range selected. The sales person is responsible for this information and should forward it to the field programmer or service shop. Radio Service Software (RSS) is not shipped with the station, order from Aftermarket and Accessories Division. (1-800-422-4210)

Please see the Product Planner for full descriptions of each option.

## **Ordering Requirements**

You **MUST** select a frequency by option.

- UHF 470-494MHz 110W (CA00018AA)
- UHF 494-512MHz 100W (CA00019AA)

The station configuration, QUANTAR will be determined by this option. Specify one transmit and one receive frequency for factory tuning. Exact customer frequencies are programmed in the field. If the frequencies are not accurate, retuning may be required in the field.

You **MUST** select a System Family Option. Choose the appropriate suffix in COF for QUANTAR.

Conventional (X597 A)

Radio Mo	odel		
Description	Nomenclature	APC	Price
QUANTAR FAMILY MODEL	T5365	509	\$7,115.00
ALL ORDERS MUST LIST THE RADIO MODEL (T5365) AS A MAIN LINE ITEM.			
Optior	ne .		

# Power And Frequency Band (s) Description Nomenclature ENH: UHF 470-494MHZ, 110W PA LIMITED QUANTAR Must Select a power level by option. The station configuration will be determined by this option. ENH: UHF 494-512 MHZ, 100W PA LIMITED QUANTAR CA00019AA 509 \$1,685.00

Must Select a power level by option. The station configuration will be determined by this option.

#### **System Family**

DescriptionNomenclatureAPCPriceENH: CONVENTIONAL ANALOG OPERATIONX597 A448\$1,050.00

Not available in Asia-Pac market.

Now proceed to select <u>Conventional</u> or return to <u>QUANTAR General Information</u>.

Data Compiled 02-Sep-2003 using DUP and all prices in USD

# QUANTAR® Receiver VHF, UHF, 800 and 900MHz Band

#### **General Information**

The following options are available on QUANTAR Receiver.

NOT FOR: QUANTAR, "Limited" QUANTAR, QUANTAR Data Base Stations, or ASTRO-TAC® Receivers.

The receiver provides wireline control and remote station alarms (via wireline). The receiver is also capable of the communications channel functions of coded squelch (PL or DPL). These features ship in a preset condition, but may be altered through the use of Radio Service Software.

#### TRUNKED ONLY

The ASTRO® Trunking (X989) provides both 9.6 kbps and 12 kbps transparency capabilities. Encode/decode is not available. ASTRO remote control operations require V.24 ASTRO Wireline Interface, (X889) on the QUANTAR Receiver.

#### **SECURENET® ONLY**

The Conventional ASTRO (X599) provides both 9.6 kbps and 12 kbps transparency capabilities. Encode/decode is not available. ASTRO remote control operations require a 9.6 kbps ASTRO modem (X437).

Software Downloads with Ethernet Capability is a Standard Feature beginning in Q4 1996. Please consult the ASTRO-TAC/QUANTAR Receiver Product Planner for more information.

To use Ethernet Capability on Conventional or Trunked QUANTAR Receivers the Ethernet Service Kit (REX4430) is required.

Please see the Product Planner for full descriptions of each option.

#### **Features**

QUANTAR Satellite receivers are housed in 12"H X 22"W X 20"D Indoor Cabinets	Synthesized Frequency     Generation
Utilizes a switching power supply (90-264 VAC, 47-63 Hz.)	4 Wire Audio
Tone Remote Control Only	1 PPM Frequency Stability (All bands)
Continuous Duty Cycle Operation	External Reference Capability
Type "N" Female Antenna Connector	Function Manual

## **Ordering Requirements**

- 1. **ORDER** Radio Model T5367 as Main-line item.
- You MUST select a frequency by option.
  - o VHF (X319)
  - o UHF (X320)
  - o 800MHz (X600)
  - 900MHz (X663)
  - VHF RX RG-1 (X326)

Specify one receive frequency for factory tuning. Exact customer frequencies are programmed in the field. If the frequencies are not accurate, retuning may be required in the field.

You MUST select a System Family Option. Choose the appropriate suffix in COF for ASTRO-TAC.

- o Conventional (X597, X599, or X806 F)
- o 6809 Trunking Single Site (X997 C)
- o 6809 Trunking Wide Area (X897 C)

#### **NOTES**

- 1. All Stations ship **UNCONFIGURED**. Station **MUST** be field programmed with the <u>Radio Service Software</u> (<u>RSS</u>) (order from CCSD 1-800-422-4210) to alter the Communication Channel functions and to input the Transmit and Receive Frequencies within the specified range selected. The Sales person is responsible for this information and should forward it to the field programmer or service shop.
- 2. QUANTAR receiver ships standard in a 12" cabinet.
- 3. You must order a larger cabinet if you require multiple receivers, or additional peripheral equipment will be mounted in the cabinet. Refer to Cabinet and Rack Link.
  - o To open rack mount the receiver, order the appropriate open rack option.
  - To rack mount a receiver in an existing or customer supplied rack, order the Rack Mount Configuration (X153)
- 4. Receivers ship via electronic van unless otherwise specified on factory order.
- 5. It is recommended that an external site frequency standard be used with 900MHz receivers.
- 6. FCC Information: see product catalog sheets.

#### SECURENET ONLY

- 1. The ASTRO receiver ships with the ASTRO transparency feature turned on. SECURENET® receivers ship with SECURENET transparency turned on.
- 2. A 9.6 kbps ASTRO modem (X437) is required for wireline operation if the receiver is configured as ASTRO transparent. 12 kb SECURENET is not compatible with the 9.6 kb ASTRO modem.
- 3. You must order a Digital Voice Modem (DVM) for SECURENET wireline operation.
- 4. Guard tone frequency of the wireline TRC connection can be programmed with RSS. Valid frequencies are from 1900 to 3000 MHz. Not compatible with DC Remote Control (C101) or ASTRO Conventional (X599).

Radi	o Model		
Description	Nomenclature	APC	Price
ASTRO SATELLITE QUANTAR RECEIVER	T5367	743	\$5,200.00

#### **Options**

	APC	Price
319	509	\$1,375.00
320	509	\$1,485.00
600	509	\$1,595.00
663	509	\$1,705.00
326	509	\$0.00
32 60	20 00 63	509 509 509 53 509

#### **Conventional System Family**

Description	Nomenclature	APC	Price			
ENH: CONVENTIONAL RECEIVER	X597	677	\$600.00			
MUST order a System Family Compatible w/T5367 & T5589						
ENH: ASTRO CONVENTIONAL RECEIVER	X599	743	\$1,200.00			
Compatible with T5367 and T5589. Not compatible with option X663						
ENH: CONV ASTRO CAI OPER RCVR	X806 F	743	\$1,320.00			
MUST Select a System Family.Compatible with T5367 & T5589. NOT COMPATIBLE with X663 Receiver 900MHz						
6809 Trunking Single Site						
Description	Nomenclature	APC	Price			
ENH: RECEIVER ONLY 6809 CONTROLLER	X997 C	225	\$660.00			
MUST order System Family 6809 Trunking Single Site Compatible w/T5367 & T5589 and NOT X663						
ENH: 6809 ASTRO TRKG RCVR	X989 B	360	\$1,200.00			
MUST Select a System Family Option.6809 Trunking Single Site. Compatible with T5367 and T5589.						
NOT COMPATIBLE with X663-Receiver 900MHz						
6809 Trunking WIDE A	rea					

#### 6809 Trunking WIDE Area

ENH: SZ6809 ASTR CALTRK RCVR	X897 C	360	\$1,380.00
MUST Calant a Contain Family, COOC Trumbing WIDE Area, Compatible with TESCS and			

MUST Select a System Family. 6809 Trunking WIDE Area. Compatible with T5367 and T5589. NOT COMPATIBLE with X663 Receiver 900MHz

Now proceed to select **Conventional** or <u>6809 Trunking</u>.

#### **Cabinet and Rack Link**

#### **DIAGNOSTICS**

Description	Nomenclature	APC	Price
ENH: REMOTE RSS COMPATIBILITY	X288	509	\$200.00
WHEN ORDERED WITH *T5503 or T5504Requires EPIC SCR(Ontions X791 X792 or			

WHEN ORDERED WITH \*T5503 or T5504--Requires EPIC SCB(Options X791, X792 or X793) \*T5505--Requires EPIC SBC(Option X792 or X893) \*T5756--Requires EPIC SBC (X793) T5367--QUANTAR Receivers (T5367) adds Password Protection Capability to standard Remote RSS feature. Requires a wireline with modem at both ends. Standard Remote RSS feature allows the use of RSS from a remote location.

#### **INTERNAL SITE REFERENCE**

Description	Nomenclature	APC	Price
ADD: INTERAL UHSO TO QUANTAR/QUANTR	X873	509	\$2,000.00
Includes UHSO module (Ultra High Stability Oscillator) All 900MHz stations are supplied with ERF capability and MUST be used with Internal UHSO (X873) or an External Site Frequency Standard. NOT COMPATIBLE with T5589 ASTRO-TAC Receiver			
ADD: MULTI DROP UHSO CABLING	X394	509	\$65.00
QUANTAR only. Allows 1 UHSO to drive up to 6 stations via daisy-chaining. Includes 5 cables and 5 "Tees". Stations with EPIC boards built prior to 6/96, receivers built with the old station control board, and UHSO"s built prior to 6/96 do not support this capability. All 900MHz stations are supplied with ERF capability and MUST be used with Internal UHSO (X873) or an External Site Frequency Standard.			
NOT COMPATIBLE with T5589 ASTRO-TAC Receiver			
MANUALS			
Description	Nomenclature	APC	Price
ADD: MANUAL, SERVICE	X432	509	\$200.00
Not Compatible with T5589-ASTRO-TAC Receiver. Currently only includes VHF, UHF and 800 MHz. models.			
DEL: FUNCTIONAL MANUAL	X287	509	(\$50.00)
Compatible with T5367 and T5589. This option deletes the standard manual included with every station/receiver. This option is recommended when multiple receivers/multiple stations will be used at the same site and one manual per receiver/station is not needed.			
MULTIPLE FREQUENC	Υ		
Description	Nomenclature	APC	Price
ENH: MULTI PL COMPATIBILITY	X286	509	\$400.00
Provides the capability of using up to 12 PLs and 1 DPL on a single frequency. Limits the station to single frequency operation. When ordered with T5505 requires conventional operation (X597, X598 or X599). NOT COMPATIBLE with X599, X806, X777, or T5589 ASTRO-TAC Receiver			
MODEM			
Description	Nomenclature	APC	Price
ADD: ASTRO 9.6 KBPS MODEM BOARD	X437	509	\$1,300.00
Compatible with T5366, T5367, T5589, T5756 and T5757. For T5770, not compatible with U673aa. The ASTRO station ships with the ASTRO transparency feature turned on. NOT COMPATIBLE with Trunking Receivers.	7431	309	\$1,300.00
PERIPHERALS			
Description	Namanalations	400	Duis -
Description	Nomenclature	APC	Price
ADD: FRONT ACCESS JUNCTION PANEL  NOT COMPATIBLE with X87 or X153; T5589 ASTRO-TAC Receiver.  Requires a larger cabinet; 3 rack units of space.	X139	509	\$200.00
PRIMARY VOLTAGE			
Description	Nomenclature	APC	Deina
Description ADD: BATTERY CHGR AND EMERG REVERT WITH LOW VOLTAGE DISCONNECT FEAT	X30	509	<b>Price</b> \$300.00
Not compatible with T5589-ASTRO-TAC Receiver. Battery charger and emergency reverting with low voltage disconnect feature. Uses 12V batteries for 25W models, 24V			

batteries for 100W and 125W models.	batteries	for	100W	and	125W	models.
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ALT: DC ONLY OPERATION HP	X121	512	(\$300.00)
Required for DC power source operation. 14.2 VDC @ 1.5 Amps source for 30 & 40W models; & 28.6 VDC 75W & 100W models. NOTE: NEGATIVE GROUND ONLY.			
ALT: CONVERTER DC TO DC 48/60V HP	X113	509	\$200.00
Not compatible with T5589. +/- 48 and +/- 60 VDC source. The X113 will no longer be available when ordered in conjunction with low power options: X330, X240, or X250.			

#### **REMOTE CONTROL**

Description	Nomenclature	APC	Price
DEL: WIRELINE OPERATION	X84	512	(\$200.00)
Standalone repeater operations. NOT COMPATBILE with trunking receivers.			
ENH: SPECTRA TAC CONVENTIONAL	X269	509	\$254.00
Requires that station be equipped with either a 4 wire or 8 wire wireline. WHEN ORDERED WITH:  **X777 or X888; X269 is included. *T5505-Requires Conventional or 6809 Trunking operation (X597, X598, X599, X997, X996, X992 or X989). **T5367 or T5589, not compatible with X84.*T5756-Requires receiver to be equipped with 4 Wire Wireline.  COMPATIBLE with T5367-QUANTAR Receiver and T5589-ASTRO-TAC Receiver. NOT COMPATIBLE with X84			
ADD: ASTRO W/L INTFC V.24	X889	509	\$500.00
NOT Compatible with T5589-ASTRO-TAC Receiver or X437 *Provides a connection to an external digital link. REQUIRED for ASTRO trunked and ASTRO simulcast systems and any hybrid link system.			
ADD: DC REMOTE CONTROL	C101	509	\$100.00
NOT COMPATIBLE with X598, X599, X806, T5367-Quantar Receiver or T5589ASTRO-TAC Receiver			
When ordered with Quantar Receiver, not compatible with Trunking Receviers.			
ALT: WIRELINE INTERFACE 8 WR	X144	509	\$200.00
For 6 wire applications, with TRC tones on one wire pair, transmit audio on a second pair and receive audio on the third pair. Compatible with X597 only.			

NOT COMPATBILE with: T5589 ASTRO-TAC Receiver

#### TRUNKING CABLES

Description	Nomenclature	APC	Price
ALT: CABLE, 50FT REPEATER	X337	509	\$87.00
Any of these option (X337, X338, & X339) ordered replaces the standard 25' 6809 trunking cable option.			
ALT: CABLE, REPEATER 75'	X338	509	\$124.00
ALT: CABLE, REPEATER 100'	X339	509	\$165.00
Compatible with T5367 and T5589; Any of these X337, X338, & X339 ordered replaces the standard 25' 6809 trunking cable option.			

#### **WILDCARD**

Description	Nomenclature	APC	Price
ENH: BASIC WILDCARD OPERATION	X233	509	\$400.00
NOT COMPATIBLE with T5589-ASTRO-TAC Receiver, X157-Adv WildCard, or X84. Provides capability for up to 8 inputs, 7 which are transistors, 1 optocoupler and 4 outputs, 3 of which are transistor closure to ground and 1 is a relay course.			
ADD: ADVANCED WILDCARD OPER	X157	509	\$1,000.00
NOT COMPATIBLE with T5589-ASTRO-TAC Receiver, X233-Basic Wildcard, X84, or C115. Provides capability for up to 12 inputs, 8 which are transistors, 4 optocoupler and 10 outputs, 6 of which are transistor closure to ground and 4 is a relay course. Includes 8 wire wireline.			
ENH: MAIN/STANDBY OPERATION	C753	509	\$350.00
Provides console TRC control, external closure or hot switchover. Requires option X157. NOT COMPATIBLE with: X599 or X806; T5589 ASTRO-TAC Receiver			

#### **Accessories**

#### FRUs, Kits, and Accessories Link

Data Compiled 02-Sep-2003 using DUP and all prices in USD

# 6809 TRUNKING OPTIONS VHF, UHF, 800, and 900MHz Bands

#### **General Information**

The following options are available on 6809 Trunking, see other pages for:

#### INTELLIREPEATER® Trunking

#### 2.7 INTELLIREPEATER® Trunking

#### **Conventional Stations**

- For trunked stations, Global System Assignments (TDR) must be current with Connect Tone, INTELLIREPEATER frequencies, and other selected options on the price pages.
- For U.S. Systems Base Station ID number must be current in TCMS.
- ALL stations must be field programmed with the Radio Service Software (RSS) for:
  - o Site ID
  - Base Station ID
  - o Repeater Number
  - o Failsoft Mode
  - Control Channel
  - o Number of stations at the site
  - Exact power output.
- The salesperson is responsible for this information and should forward it to the field programmer or service shop.
- Radio Service Software (RSS) is not shipped with the station, order from Aftermarket and Accessories Division. (1-800-422-4210)
- Stations ordered with 6809 trunking operation can be field programmed for:
  - SMARTNET® Operation
  - SmartZone® Operation
  - o Fast/slow fail soft detection
- Each station ordered with 6809 trunking operation ships with a 25 foot trunking cable to connect the repeater to the Central Controller.

Please see the Product Planner for full descriptions of each option.

#### **Options**

#### Trunking Cable (s)

DescriptionNomenclatureAPCPriceALT: CABLE, 50FT REPEATERX337509\$87.00

cable option.	V000	500	<b>#</b> 404.00
ALT: CABLE, REPEATER 75' Compatible with T5367 and T5589. Any of these X337, X338, & X339 ordered replaces the	X338	509	\$124.00
standard 25' 6809 trunking cable. ALT: CABLE, REPEATER 100'	X339	509	\$165.00
Compatible with T5367 and T5589; Any of these X337, X338, & X339 ordered replaces the standard 25' 6809 trunking cable option.			
Miscellaneous			
Description	Nomenclature	APC	Price
ADD: CONSOLE PRIORITY INTERFACE	C115	509	\$700.00
INCLUDESTAC Capability.			
8 wire wireline. NOT Compatible with (X84)or T5589 ASTRO-TAC Receiver			
Simulcast			
Description	Namanalatina	ADC	Duine
Description ALT: ANALOG SIMULCAST	Nomenclature X777	<b>APC</b> 509	<b>Price</b> \$600.00
NOT COMPATIBLE with:	XIII	509	φουυ.υυ
T5367-Quantar Receiver or T5589ASTRO-TAC Receiver. X84, X286, or C115.			
1. When ordered with T5505 requires ASTRO conventional or 6809 ASTRO trunking operation (Options X599, X992, or X989).			
INCLUDES X269-Spectra TAC Conventional capability.  ADD: GPS SIMULCAST	X888	509	\$1,000.00
Requires ASTRO Operation.	7000	303	ψ1,000.00
INCLUDES TAC capability (X269)			
NOT COMPATIBLE with: T5367-Quantar Receiver or T5589ASTRO-TAC Receiver			
ENH: FALL BACK IN CAB SIMU RPT	U764	509	\$200.00
Allows the station to in-cabinet repeat as a fall back mode in a simulcast configuration.  **Requires Analog Simulcast (X777) or Astro CAI Simulcast (X888).			
NOT COMPATIBLE with:			
T5367-Quantar Receiver or T5589ASTRO-TAC Receiver			
Remote Control			
Description	Nomenclature	APC	Price
ALT: WIRELINE INTERFACE 8 WR	X144	509	\$200.00
For 6 wire applications, with TRC tones on one wire pair, transmit audio on a second pair			
and receive audio on the third pair. Compatible with X597 only.			
NOT COMPATBILE with: T5589 ASTRO-TAC Receiver			
ENH: SPECTRA TAC CONVENTIONAL	X269	509	\$254.00
Requires that station be equipped with either a 4 wire or 8 wire wireline. WHEN ORDERED			<b>4</b> _000
WITH:  **X777 or X888; X269 is included. *T5505-Requires Conventional or 6809 Trunking			
operation (X597, X598, X599, X997, X996, X992 or X989). **T5367 or T5589, not compatible with X84.*T5756-Requires receiver to be equipped with 4 Wire Wireline. COMPATIBLE with T5367-QUANTAR Receiver and T5589-ASTRO-TAC Receiver. NOT COMPATIBLE with X84			
Ethernet Kits			
Description	Nomenclature	APC	Price
PC ETHERNET SERVICE KIT	REX4430	454	\$156.00

Includes a 6 foot ethernet cable, 2 tees, Velcro insulating strip for each tee and two terminators. Required to utilize Ethernet Capability on Conventional/6809 Trunked Stations and Conventional Trunked Receivers.

Now proceed to select Cabinet and Rack Options or return to QUANTAR® General Information

Data Compiled 02-Sep-2003 using DUP and all prices in USD

#### **OUTDOOR CABINET FOR INTELLIREPEATER® BASE STATION SITES**

#### **General Information**

The TT1016 Motorola Outdoor Cabinet is a low profile, outdoor rated enclosure designed for housing equipment required to support Quantar Intellirepeater® Base Station Site configurations. The TT1016 Motorola Outdoor Cabinet has achieved Ship Acceptance under specific, predefined equipment racking configurations (see TT1016 Motorola Outdoor Cabinet, Field Requirements Document at <a href="http://ispo.mot.com">http://ispo.mot.com</a>).

The TT1016 Motorola Outdoor Cabinet addresses the need for a competitive small site solution by providing a low cost outdoor enclosure capable of housing up to 5 channels of RF equipment (Quantar IR only) and limited ancillary equipment. The cabinet is a lightweight NEMA 4 rated aluminum enclosure with a powdercoat finish allowing application in most climates. The TT1016 Motorola Outdoor Cabinet provides 25RU of rack space per bay with limited additional rack units available via rear swing out racks. The physical dimensions of the Outdoor Cabinet is 65" H x 63" W x 42" D providing an ideal, low profile enclosure.

The TT1016 Motorola Outdoor Cabinet will be incorporated into the overall Motorola Standard Building (MSB) Site Solutions offering. The TT1016 Motorola Outdoor Cabinet provides a very cost effective site solution for small Intellirepeater® Sites with the following strategic benefits:

- Provides a solution to customers with limited Real Estate issues.
- Less obtrusive RF Sites due to smaller footprint and profile.
- Rapid deployment of Wide-Area System and Site Configurations due to minimum delay in land acquisition, zoning requirements, and building approvals.
- Allows for faster and easier Site Installations.

# **Ordering Requirements**

#### **Odering Instructions:**

- 1. The cabinet is only available for use with Quantar Intellirepeater® sites.
- 2. The cabinet is Ship Accepted per specific, predefined equipment racking configurations (no exceptions).
- 3. The cabinet must be staged at CCSi to ensure proper equipment integration.

#### Models

DescriptionNomenclatureAPCPriceOUTDOOR CABINET, 65"X63"X42", (2) EQUIP BAY, (1) PWR BAY, (2)TT1016329\$23,400.00ACW/HEAT

Dimensions: 65"(H) x 63"(W) x 42"(D)

#### **Options**

Miscellaneous			
Description	Nomenclature	APC	Price
ADD: BATTERY BLANKET, 21" X 38" (ONE BAY)	TT16001AA	329	\$210.00
Fiberglass reinforced silicone rubber 120VAC wire heater. Installed, with thermostat and wire harness using AMP Mate-N-Lock connection to power. Suitable for (1) bay. Dimensions: 21" x 38" (Maximum order quantity: 2)			
ADD: 200 AMP CIRCUIT BREAKER AND GENERATOR RECEPT (INSTALLED)	TT16002AA	329	\$1,740.00
For portable emergency generator use only. Provides method of connection for applications that do not have a permanent generator installed. Appleton receptacle and plug. (Maximum order quantity: 1)			
ADD: SERVICE CANOPY TENT, 8' X 8', ONE MAN SETUP	TT16003AA	329	\$1,675.00
Service canopy tent to keep weather out and protect the service technician. Can be set up by one person.  Dimensions: 8' x 8'			
ADD: DOOR HANDLE REPAIR KIT, FOR ONE HANDLE	TT16004AA	329	\$58.00
Contains components to repair one handle damaged by excessive torquing.			

#### **Accessories**

Data Compiled 02-Sep-2003 using DUP and all prices in USD

# QUANTAR® Conventional Options

#### **General Information**

The following options are available on Conventional Stations. See other pages for <u>6809 Trunking</u>, <u>INTELLIREPEATER® Trunking</u> or <u>2.7 INTELLIREPEATER</u> Trunking.

Guard tone frequency of the wireline TRC connection can be programmed with RSS. Valid frequencies are from 1900 to 3000 MHz. Not compatible with DC Remote Control (C101) or ASTRO® Conventional (X599 and X806).

E & M Keying is a standard feature ONLY on Analog Conventional Stations. This is NOT compatible with ASTRO X599 and X806.

Conventional stations can be field programmed for analog RA/RT operation with RSS.

**Conventional Operation**, you **must** specify either Repeater Operation (X580) or Base Station Operation (X622). If repeater operation is ordered, the transmit and receive frequencies cannot be equal.

The ASTRO station ships with the ASTRO transparency feature turned on.

## **Options**

#### **Conventional Station Operation**

Description Nomenclature APC Price

ADD: REPEATER OPERATION  Tx NOT equal to Rx. NOT COMPATIBLE with: T5367-Quantar Receiver, T5589ASTRO-TAC Receiver, or X997_A, X996_A, X992_Q, X989 D. X999 C. X998 B. X990 A or X900 A	X580	509	\$0.00	
ADD: BASE STATION OPERATION  May require X371. NOT COMPATIBLE: T5367-Quantar Receiver, T5589ASTRO-TAC Receiver OR X997A, X996A, X992Q, X989D, X999C, X998B, X990A or X900A	X622	509	\$0.00	
Peripherals				
<b>Description</b> ADD: ANT RELAY, QTAR/QTRO VHF/UHF	Nomenclature X371	<b>APC</b> 509	<b>Price</b> \$250.00	

NOT COMPATIBLE with: T5367-Quantar Receiver or T5589--ASTRO-TAC Receiver

**Simulcast** 

Description ALT: ANALOG SIMULCAST NOT COMPATIBLE with: T5367-Quantar Receiver or T5589ASTRO-TAC Receiver. X84, X286, or C115.	Nomenclature X777	<b>APC</b> 509	<b>Price</b> \$600.00
When ordered with T5505 requires ASTRO conventional or 6809 ASTRO trunking operation (Options X599, X992, or X989).     INCLUDES X269-Spectra TAC Conventional capability.  ADD: GPS SIMULCAST  Requires ASTRO Operation.  INCLUDES TAC capability (X269)	X888	509	\$1,000.00
NOT COMPATIBLE with: T5367-Quantar Receiver or T5589ASTRO-TAC Receiver ENH: FALL BACK IN CAB SIMU RPT Allows the station to in-cabinet repeat as a fall back mode in a simulcast configuration. **Requires Analog Simulcast (X777) or Astro CAI Simulcast (X888).	U764	509	\$200.00

NOT COMPATIBLE with:

T5367-Quantar Receiver or T5589--ASTRO-TAC Receiver

#### **Telephone Interconnect**

The MRTI Interface option is cancelled. Alternative supplier investigation is in process.

#### Scan

Description	Nomenclature	APC	Price
ENH: ASTRO SCAN	X403AA	509	\$300.00
Allows the station to be programmed for scan or priority scan. The station will scan in analog or ASTRO CAI voice calls, individually or in a mixed mode configuration. This option does not include Priority Re-Check capability or ASTRO VSELP scan.	n		
NOT COMPATIBLE with: X888-GPS Simulcast, X599, or systems with data or OTAR; T5367-Quantar Receiver or T5589ASTRO-TAC Receiver			
ENH: LIMITED ANALOG PRIORITY SCAN	C457	509	\$100.00
Allows the station to be programmed for scan or priority scan. The station will scan analog voice calls, individually or in a mixed mode configuration. This option does not include Priority Re-check capability, ASTRO VSELP or ASTRO CAI scan.			

NOT COMPATIBLE with: X777-Analog Simulcast, X599, X806 or systems with data or OTAR. T5367-Quantar Receiver or T5589--ASTRO-TAC Receiver

Description	Nomenclature	APC	Price
ADD: REPEATER ACC SAM	X932	509	\$1,000.00
MDC, DTMF, Single Tone requires separate Radio Service Software or programming (RVN4110)			
NOT COMPATIBLE with: T5367-Quantar Receiver or T5589ASTRO-TAC Receiver			
ENH: FAST KEY-UP	U453AA	509	\$300.00
Allows Quantar stations to be keyed up by an external device (i.e. Data controller) in approx 12 milliseconds (Quantar VHF) or 10 milliseconds (all other stations). De-Key time on all Quantar stations is 30 milliseconds. Limits station to single channel operation. See Product Planner for additional incompatibilities.  **Requires X157 Enhanced Wildcard.  **NOT COMPATIBLE with: X598, X599, X806, X777, X888. T5367-Quantar Receiver, T5367-Quantar Receiver or T5589ASTRO-TAC Receiver			
ADD: DC REMOTE CONTROL	C101	509	\$100.00
NOT COMPATIBLE with			ψ.σσ.σσ
X598, X599, X806, T5367-Quantar Receiver or T5589ASTRO-TAC Receiver			
When ordered with Quantar Receiver, not compatible with Trunking Receviers.			
Wide Space Receive	r		
Description	Namanalatura	ADC	Duine
Description ADD MADE DOWN NAME DATE.	Nomenclature	APC	Price
ADD: WIDE SPACED RCVR VHR R1&R2	X312	509	\$1,700.00
NOT COMPATIBLE with X182, X873, X932, and T5589 ASTRO-TAC Receiver			
ADD: WIDE SPACED RCVR UHF	X322	509	\$1,700.00
NOT COMPATIBLE with	A322	309	\$1,700.00
X182, X873, X932, and T5589 ASTRO-TAC Receiver			
ADD: WIDE SPACED RCVR 800 MHZ	X323	509	\$1,700.00
NOT COMPATIBLE with			. ,
X182, X873, X932, and T5589 ASTRO-TAC Receiver			
ADD: WIDE SPACE RCVR 900 MHZ	X324	509	\$1,700.00
NOT COMPATIBLE with X182, X873, X932, and T5589 ASTRO-TAC Receiver			
Wildcard			
Wildcard			
Description	Nomenclature	APC	Price
ENH: MAIN/STANDBY OPERATION	C753	509	\$350.00
Provides console TRC control, external closure or hot switchover. Requires option X157. NOT COMPATIBLE with: X599 or X806; T5589 ASTRO-TAC Receiver	0.00	000	Ψ000.00
Remote Control			
Description	Name and the	4.00	ъ.
Description	Nomenclature	APC	Price
ALT: WIRELINE INTERFACE 8 WR	X144	509	\$200.00
For 6 wire applications, with TRC tones on one wire pair, transmit audio on a second pair and receive audio on the third pair.  Compatible with X597 only.			
NOT COMPATBILE with: T5589 ASTRO-TAC Receiver			
DEL: WIRELINE, QUANTAR STN	X84	509	(\$500.00)
Stand alone repeater operations. NOT COMPATBILE with: T5589 ASTRO-TAC Receiver	7.0 1	335	(ψοσο.σσ)
ENH: SPECTRA TAC CONVENTIONAL	X269	509	\$254.00
Requires that station be equipped with either a 4 wire or 8 wire wireline. WHEN ORDERED	,,200	303	Ψ204.00
WITH:			
**X777 or X888; X269 is included. *T5505-Requires Conventional or 6809 Trunking operation (X597, X598, X599, X997, X996, X992 or X989). **T5367 or T5589, not compatible with X84.*T5756-Requires receiver to be equipped with 4 Wire Wireline. COMPATIBLE with T5367-QUANTAR Receiver and T5589-ASTRO-TAC Receiver. NOT			

COMPATIBLE with X84

ENH: MULTI PL COMPATIBILITY

X286

509

\$400.00

Provides the capability of using up to 12 PLs and 1 DPL on a single frequency. Limits the station to single frequency operation. When ordered with T5505 requires conventional operation (X597, X598 or X599). NOT COMPATIBLE with X599, X806, X777, or T5589 ASTRO-TAC Receiver

#### **Modems**

DescriptionNomenclatureAPCPriceADD: ASTRO 9.6 KBPS MODEM BOARDX437509\$1,300.00

Compatible with T5366, T5367, T5589, T5756 and T5757. For T5770, not compatible with U673aa. The ASTRO station ships with the ASTRO transparency feature turned on. NOT COMPATIBLE with Trunking Receivers.

#### **Ethernet Kits**

DescriptionNomenclatureAPCPricePC ETHERNET SERVICE KITREX4430454\$156.00

Includes a 6 foot ethernet cable, 2 tees, Velcro insulating strip for each tee and two terminators. Required to utilize Ethernet Capability on Conventional/6809 Trunked Stations and Conventional Trunked Receivers.

Now proceed to select <u>Cabinet and Rack Options</u> or return to <u>QUANTAR General Information</u>.

Data Compiled 02-Sep-2003 using DUP and all prices in USD

# QUANTAR® Cabinet and Rack Options

#### Cabinet Information

Cabinets apply to QUANTAR, QUANTAR Data Base Station, QUANTAR Receiver, and ASTRO-TAC® Receiver.

- 1. Choose the appropriate option (X380, X381, X382, or X383) for EACH of the additional stations to be installed within the same cabinet.
- 2. Omit the Standard Cabinet (X87) on each additional station.
- 3. Order (X379) to allow space between stations for installed peripherals.

QUANTAR Stations ship standard in a 12" cabinet.

- You must order a larger cabinet option if you require any peripheral equipment to be mounted in the station's cabinet.
- To open rack mount the station, order appropriate rack configuration from QUANTAR rack options
- To rack mount a station in an existing or customer supplied rack, order Rack Mount Configuration option, X153.

QUANTAR Data Base Station requires a minimum 30" indoor cabinet or rack.

- You may order a larger cabinet or rack option to accommodate additional peripheral equipment that will be installed in the station's cabinet.
- To open rack mount the station, order the appropriate rack configuration from QUANTAR rack options.
- a maximum of two stations may be fitted in one cabinet

QUANTAR Receiver ships standard in a 12" cabinet.

- You must order a larger cabinet if you require multiple receivers, or additional peripheral equipment will be mounted in the cabinet.
- To open rack mount the receiver, order the appropriate open rack option.
- To rack mount a receiver in an existing or customer supplied rack, order the Rack Mount Configuration option, X153.

ASTRO-TAC Receiver ships standard with cabinet mount hardware.

- To mount the receiver in a cabinet at the factory, a cabinet option must be ordered.
- To rack mount the receiver order the appropriate rack option along with X153, Sat Rx Rack Mount Hardware.
- Top rack mount the receiver in an existing or customer supplied rack order option X153. (Racks must be EIA 19" standard.)
- A maximum of five receivers can be placed in a cabinet with no degradation of specifications. Please contact the Product Group for applications requiring more than five receivers per cabinet.

#### SHIPPING INFORMATION:

All stations ship via electronic van in the US unless otherwise specified on order.

To ship stations internationally via air freight or to ship rack mounted stations internationally, please contact the Shipping Department for a special quote.

#### **CABINETS**

**Cabinets** 

Description	Nomenclature	APC	Price
ALT: 12" INDOOR CABINET	X430	743	\$125.00
NOT COMPATIBLE with multiple receivers in the same cabinet.			
ADD: CABINET, 30" INDOOR	X52AG	743	\$360.00
15 rack units			
ADD: 30" INDOOR CABINET	X52	512	\$360.00
Deletes the standard shipping box. Cabinets apply to MTR2000. Allow space for peripherals when determing cabinet size. See product planner for thermal considerations.			
DEL: CABINET	X87	509	(\$125.00)
For use with T5366, T5367, T5770 and T6507. Order only for additional comparators to be mounted in larger cabinet. When ordered with Quantar Receiver, (T5367) not compatible with X139 or X153. Use this option when you order stations: X380, X381, X382, & X383. NOT COMPATIBLE with X139, X153, X182, X425, X426, X676, or X696			
ALT: STATION, 2ND FROM BOTTOM	X380	509	\$0.00
Omit Standard Cabinet (X87) on each additional station when you order this station.			
ALT: STATION, 3RD FROM BOTTOM	X381	509	\$0.00
Omit Standard Cabinet (X87) on each additional station when you order this station.			
ALT: STATION, 4TH FROM BOTTOM	X382	509	\$0.00
Omit Standard Cabinet (X87) on each additional station when you order this station.			
ALT: STATION, 5TH FROM BOTTOM	X383	509	\$0.00
Omit Standard Cabinet (X87) on each additional station when you order this station.			
ALT: CABINET, INDOOR 60"	X180	509	\$880.00
For use with C99ED/001C, T5367 and T5366. Holds up to 5 QUANTAR/Receivers or 6 Comparators.			
ADD: CABINET, 60" INDOOR HPB	X180AG	509	\$880.00

ADD: 3 STATIONS IN ONE CAB	X375AA	509	\$0.00
QUANTAR only. The factory order must be marked as "No Partial" and must contain only the receivers which will be installed within the same cabinet. Order any additional receivers on a separate factory order. Multiple receiver options and location options are compatible with cabinet options only and CANNOT be applied to rack configurations. Not compatible with X741, X742, X743, X832, X882 or X810.			
Choose this option or X374, X376, X377 for the FIRST station or receiver on the order. This station or receiver will be installed at the bottom of the cabinet and should include the maximum number of peripherals that are ordered. Choose a cabinet large enough for all stations or receivers plus peripherals as a sub-item to this station.			
ADD: 3 STATIONS +3RU EA TO CAB	X375AB	509	\$0.00
QUANTAR only. The factory order must be marked as "No Partial" and must contain only the receivers which will be installed within the same cabinet. Order any additional receivers on a separate factory order. Multiple receiver options and location options are compatible with cabinet options only and CANNOT be applied to rack configurations. Not compatible with X741, X742, X743, X832, X882 or X810.			
Choose this option or X374, X376, X377 for the FIRST station or receiver on the order. This station or receiver will be installed at the bottom of the cabinet and should include the maximum number of peripherals that are ordered. Choose a cabinet large enough for all stations or receivers plus peripherals as a sub-item to this station.			•
ADD: 3 STATIONS +6RU EA TO CAB	X375AC	509	\$0.00
QUANTAR only. The factory order must be marked as "No Partial" and must contain only the receivers which will be installed within the same cabinet. Order any additional receivers on a separate factory order. Multiple receiver options and location options are compatible with cabinet options only and CANNOT be applied to rack configurations. Not compatible with X741, X742, X743, X832, X882 or X810.			
Choose this option or X374, X376, X377 for the FIRST station or receiver on the order. This station or receiver will be installed at the bottom of the cabinet and should include the maximum number of peripherals that are ordered. Choose a cabinet large enough for all stations or receivers plus peripherals as a sub-item to this station.			
ADD: 4 STATIONS +3RU EA TO CAB	X376	509	\$0.00
QUANTAR only. The factory order must be marked as "No Partial" and must contain only the receivers which will be installed within the same cabinet. Order any additional receivers on a separate factory order. Multiple receiver and location options are only compatible with cabinet and CANNOT be applied to rack configurations. Not compatible with X741, X742, X743, X832, X882 or X810.			
Choose this option or X374, X375, X377 for the FIRST station or receiver on the order. This station or receiver will be installed at the bottom of the cabinet and should include the maximum number of peripherals that are ordered. Choose a cabinet large enough for all stations or receivers plus peripherals as a sub-item to this station.			
ADD: 5 STATIONS IN ONE CAB	X377	509	\$0.00
Space			
Description	Nomenclature	APC	Price
ADD: 3 RACK UNITS OF SPACE	X379	509	\$0.00
Order for any station in the cabinet to allow space between stations for field installed peripherals.			

# RACKS

- 1. These options delete the standard cabinet. Mounting hardware is included.
- 2. To order multiple QUANTAR in a rack, the first QUANTAR must be ordered with the desired rack and the additional stations can be ordered with option X153 (deletes standard cabinet). They must be reconfigured in the field into multiple stations in a rack configuration.
- 3. X153 only applies to QUANTAR. Deletes standard cabinet, adds racking hardware, no rack included. Not compatible with X676, X696, X182, X139, X425, X426 or X87.

#### **Modular Racks**

Description	Nomenclature	APC	Price
ALT: MODULAR RACK, 30";16 RACK UNIT	X741	509	\$200.00
16 Rack Units. ONLY compatible with ASTRO-TAC Receivers. *When ordering a modular or open rack order the Satellite Receiver Rack Mount Hardware, (X153).			
*This option must be ordered on all receivers that will be rack mounted.  *Only one receiver can be rack mounted at the factory.  *All additional receivers must be field installed.  *The modular racks can be stacked t heights equal to an open rack.  *These stackable racks are recommended for all rack mounted systems going through CCSI.			
See Product Planner for details, RO-2-66.  ALT: MODULAR RACK, 45",24 RACK UNIT	X742	509	\$225.00
24 Rack Units. ONLY compatible with ASTRO-TAC Receivers. *When ordering a modular or open rack order the Satellite Receiver Rack Mount Hardware,	X142	309	ψ223.00
(X153).  *This option must be ordered on all receivers that will be rack mounted.  *Only one receiver can be rack mounted at the factory.  *All additional receivers must be field installed.  *The modular racks can be stacked t heights equal to an open rack.			
*These stackable racks are recommended for all rack mounted systems going through CCSI.  See Product Planner for details, RO-2-66.			
ALT: MODULAR RACK, 52",27 RACK UNIT	X743	509	\$250.00
27 Rack Units. Compatible with T5367 and T5589. To order multiple receivers in a rack, the first receiver must be ordered on a rack and the additional receivers must be ordered with option X153, in a cabinet or in a rack and must be reconfigured in the field into multiple receivers in a rack configuration. This option deletes the standard cabinet. Mounting hardware is included. If two QUANTAR receivers will be mounted on the same rack, order the first receiver on the rack and the second receiver with option X153. MODULAR RACKS FOR QUANTAR Racks which may be stacked to heights equal to an open rack. These stackable racks are recommended for all rack mounted systems going through the CCSI. See Product Planner for details, RO-2-66.			
Open Racks			
ADD: 7' OPEN RACK-QUANTAR	X832	509	\$470.00
44 Rack Units. When ordered for Quantar Receivers, to order multiple receivers in a rack, the first receiver must be ordered on a rack and the additional receivers must be ordered with option X153, in a cabinet or in a rack and must be reconfigured in the field into multiple receivers in a rack configuration. THIS OPTION DELETED THE STANDARD CABINET. MOUNTING HARDWARE IS INCLUDED. If two Quantar receivers will be mounted on the same rack, order the first receiver on the rack and the second receiver with option X153. Racks which may be stacked to heights equal to an open rack. These stackable racks are recommended for all rack mounted systems going through the CCSI. See Product Planner for details, RO-2-66.			
Description	Nomenclature	APC	Price
ADD: 7.5' OPEN RACK-QUANTAR, 48RU	X882	509	\$495.00
48 Rack Units. When ordered for Quantar Receivers, to order multiple receivers in a rack, the first receiver must be ordered on a rack and the additional receivers must be ordered with option X153, in a cabinet or in a rack and must be reconfigured in the field into multiple receivers in a rack configuration. THIS OPTION DELETED THE STANDARD CABINET. MOUNTING HARDWARE IS INCLUDED. If two Quantar receivers will be mounted on the same rack, order the first receiver on the rack and the second receiver with option X153. Racks which may be stacked to heights equal to an open rack. These stackable racks are recommended for all rack mounted systems going through the CCSI. See Product Planner for details, RO-2-66.			
ADD: 8' OPEN RACK -QUANTAR	X810	509	\$520.00
51 Rack Units. When ordered for Quantar Receivers, to order multiple receivers in a rack, the first receiver must be ordered on a rack and the additional receivers must be ordered with option X153, in a cabinet or in a rack and must be reconfigured in the field into multiple receivers in a rack configuration. THIS OPTION DELETED THE STANDARD CABINET. MOUNTING HARDWARE IS INCLUDED. If two Quantar receivers will be mounted on the same rack, order the first receiver on the rack and the second receiver with option X153. Racks which may be stacked to heights equal to an open rack. These stackable racks are recommended for all rack mounted systems going through the CCSI. See Product Planner for details, RO-2-66.			
ADD: HARDWARE, RACKMOUNT	X153	509	\$0.00
For use with T5366, T5367, T5770, and T6507. Omits standard cabinet and adds hardware to center on rack. When ordered with T5367 deletes standard cabinet, adds racking hardware, no rack included. NOT COMPATIBLE with X87, X139, X182, X425, X426, X676, or X696.			

#### **Ruggedized Cases**

Description	Nomenclature	APC	Price
ALT: RUGGEDIZED QUANTAR CASE	CA00069AB	509	\$3,800.00
Provides specialized aluminum case for Quantar portability. Stand alone receiver-2 RACK Unit.			
ALT: TRAVEL BAG, RUGGEDIZED 5 RU	CA00070AB	509	\$500.00
Provides travel bag with wheels for use with 5 rack unit ruggedized case. The stand alone receiver is a 2 RACK Unit.			
ALT: RUGGEDIZED ASTRO/TAC CSE 4RU	CA00069AC	509	\$3,500.00
Provides specialized aluminum case for ASTRO-TAC portability. Accomodates 1 ASTRO-TAC receiver (T5589). Stand alone receiver is a 2 RACK Unit.			
ALT: TRAVEL BAG, RUGGEDIZED 4 RU	CA00070AA	509	\$500.00
Provides travel bag with wheels for use with 4 RU Ruggedized ASTRO-TAC Case. The stand alone receiver is a 2 RACK Unit.			
ALT:RUGGEDIZED ASTRO/TAC CSE 5RU	CA00076AA	509	\$3,500.00
Provides specialized aluminum case for portability. Stand alone receiver is a 2 RACK unit. Accomodates 2 ASTRO-TAC receivers (T5589)			
ALT: TRAVEL BAG, RUGGEDIZED 6 RU	CA00070AC	509	\$500.00
Provides travel bag with wheels for use with 5 RU Ruggedized ASTRO-TAC Case. The stand alone receiver is a 2 RACK Unit.			

Now proceed to select General Options OR Kits and Accessories

Data Compiled 02-Sep-2003 using DUP and all prices in USD

# QUANTAR® General Options

#### **General Information**

- This page contains options for all QUANTAR applications, including Wildcard, Voltage, and Peripherals.
- Wildcard on INTELLIREPEATER® stations is for local applications ONLY.
- Wildcard station states are not reported to the Zone Controller.
- Basic (X233) or Advanced Wildcard (X157) can be used to report local station states to an external monitoring box. (These are not compatible with QUANTAR Data Base Stations.)
- All 900MHz stations are supplied with External reference capability and MUST be used with either the Internal UHSO or with an External Site Frequency standard.
- All QUANTAR with ASTRO 25 Site Repeater INTELLIREPEATER Trunking (X591AA) REQUIRE (2) PSC 9600.

# **Options**

Wildcard

# Description ROMENCIATURE ENH: BASIC WILDCARD OPERATION NOT COMPATIBLE with T5589-ASTRO-TAC Receiver, X157-Adv WildCard, or X84. Provides capability for up to 8 inputs, 7 which are transistors, 1 optocoupler and 4 outputs, 3 of which are transistor closure to ground and 1 is a relay course. ADD: ADVANCED WILDCARD OPER Nomenclature X233 509 \$400.00

NOT COMPATIBLE with T5589-ASTRO-TAC Receiver, X233-Basic Wildcard, X84, or C115. Provides capability for up to 12 inputs, 8 which are transistors, 4 optocoupler and 10 outputs, 6 of which are transistor closure to ground and 4 is a relay course. Includes 8 wire wireline.

## **Primary Voltage**

Description	Nomenclature	APC	Price	
ADD: BATTERY CHGR AND EMERG REVERT WITH LOW VOLTAGE DISCONNECT FEAT	X30	509	\$300.00	
Not compatible with T5589-ASTRO-TAC Receiver. Battery charger and emergency reverting with low voltage disconnect feature. Uses 12V batteries for 25W models, 24V batteries for 100W and 125W models.				
ALT: DC ONLY OPERATION (DC TO DC) +/- 24 VDC source (100W, 125W models)	X112	509	\$200.00	
	V440	F00	<b>#200.00</b>	
ALT: CONVERTER DC TO DC 48/60V HP	X113	509	\$200.00	
Not compatible with T5589. +/- 48 and +/- 60 VDC source. The X113 will no longer be available when ordered in conjunction with low power options: X330, X240, or X250.				
AC Power Cable				
Description	Nomenclature	APC	Price	
Description				
ADD: POWER CORD, 12 FT AC, QTAR	U752	509	\$50.00	
QUANTAR ONLY Deletes standard AC Power Cable and replaces it with a 12' AC Power Cable. NOT COMPATIBLE with X112-DC only operation (dc to dc)				
External Frequency Refere	ence			
Description	Nomenclature	APC	Price	
•				
EXTERNAL FREQUENCY REFERENCE	T5829	512	\$5,000.00	
*External Frequency Reference (EFR) provides 0.1 PPM RMS frequency stability through the use of an ovenized oscillator with 5 MHz output.				
*This level of stability is required for narrowband operation (12.5 KHz).				
*The EFR has 8 external ports which are capable of supporting 6 redceivers each.  *The total number of receivers supported by eacg EFT is 48.				
*The EFR must be ordered as a separate line item.				
*It is NOT an option to the receiver.				
*Options C187 and U178 are options to the EFR.  *The EFR ships standard with the mounting hardware required to install in a Motorola rack.				
*The EFR does not include the cabling required to connect to the receiver.				
*It requires a BNC to BNC cable which must be purchased separately.				
*Contact System Engineering for recommended cable length and part number.				
NOT COMPATIBLE with T5589-ASTRO-TAC Receiver or T5367-QUANTAR Receiver.				
ALT: MOUNTING BRACKET, CABINET	U178AA	512	\$0.00	
Replaces the standard rack mounting hardware with the hardware required for installing into	0110/01	012	ψ0.00	
a Motorola cabinet.				
NOT COMPATIBLE withT5589 ASTRO-TAC Receiver or T5367-QUANTAR Receiver				
Internal Site Reference	9			
Description	Nomenclature	APC	Price	
ADD: INTERAL UHSO TO QUANTAR/QUANTR	X873	509	\$2,000.00	
Includes UHSO module (Ultra High Stability Oscillator) All 900MHz stations are supplied with	7,070	000	Ψ2,000.00	
ERF capability and MUST be used with Internal UHSO (X873) or an External Site Frequency				
Standard. NOT COMPATIBLE with T5589 ASTRO-TAC Receiver				
ADD: MULTI DROP UHSO CABLING	X394	509	\$65.00	
QUANTAR only. Allows 1 UHSO to drive up to 6 stations via daisy-chaining. Includes 5				
cables and 5 "Tees". Stations with EPIC boards built prior to 6/96, receivers built with the old station control board, and UHSO's built prior to 6/96 do not support this capability. All				
900MHz stations are supplied with ERF capability and MUST be used with Internal UHSO				
(X873) or an External Site Frequency Standard.				
NOT COMPATIBLE with T5589 ASTRO-TAC Receiver				
Peripherals				

APC

**Price** 

Nomenclature

Description

ADD: FACTORY INSTALLED DUPLEXER, VHF, UHF, 800, 900 MHZ.	X182	509	\$1,380.00
Allows a single pair of transmit and receive channels to share a common antenna. Sub-band breaks & Tx to Rx frequency separations are as follows: VHF: 132-146, 144-160, 158-174 MHz; Tx to Rx 1.5 MHz. UHF: 403-433, 438-470 MHz; Tx to Rx = 5 MHz. 800 MHz: 851-869 MHz; Tx to Rx = 45 MHz. 900 MHz: 896-940 MHz; Tx to Rx = 39 MHz.  *If frequencies fall into the VHF overlap ranges stated above, and the lower range is desired, order Low Range Descriptor option, X327. REQUIRES a cabinet or rack. *Duplexers can be ordered without a cabinet or rack. NOT COMPATIBLE with CA00052, X153, X312, X322, X323, X324 and X622.  T5367 QUANTAR Receiver or T5589 ASTRO-TAC Receiver			
ADD: DUPLEXER UHF 380-412 CAB	X182BV	509	\$1,380.00
ADD: CIRC, TRIPLE	X676	509	\$1,500.00
Not applicable to 225 or 350 watt models or Range 4 UHF stations (494-512). *Sub-band breaks as follows: 132-146, 144-160, 158-174, 403-475, 475-494, 800, 900 MHz. *Order Low Range Descriptor option, X327, if frequencies fall into VHF overlap ranges stated above and the lower range is desired. *Also includes a Low Pass Filter. *QUANTAR stations require an RF peripheral tray, X696, to accommodate the triple circulator.			<b>,</b> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
NOT COMPATIBLE with X153 or X87; T5367 QUANTAR Receiver or T5589 ASTRO-TAC Receiver			
ALT: CIRCULATOR & DUPLEXER LOWER RANGE VHF(RANGE 1, 25 & 125W STATION)	X327	509	\$0.00
Needed when frequencies on circulators fall into the VHF sub-band overlap, and the lower frequency range is required. NOT COMPATIBLE with T5367 QUANTAR Receiver or T5589 ASTRO-TAC Receiver			
ADD: TRAY, PERIPHERAL FOR QUANTAR	X696	509	\$300.00
QUANTAR ONLY Requires a larger cabinet; 2 rack units of space.			
NOT COMPATIBLE with X153 or X87; T5589 ASTRO-TAC Receiver	V400	500	<b>#</b> 000 00
ADD: FRONT ACCESS JUNCTION PANEL NOT COMPATIBLE with X87 or X153; T5589 ASTRO-TAC Receiver.	X139	509	\$200.00
Requires a larger cabinet; 3 rack units of space.			
ADD: CIRC, TRIPLE 380-433MHZ	CA00187AA	590	\$1,500.00
Diagnostics			
Description	Nomenclature	APC	Price
ENH: REMOTE RSS COMPATIBILITY	X288	509	\$200.00
WHEN ORDERED WITH *T5503 or T5504Requires EPIC SCB(Options X791, X792 or X793) *T5505Requires EPIC SBC(Option X792 or X893) *T5756Requires EPIC SBC (X793) T5367QUANTAR Receivers (T5367) adds Password Protection Capability to standard Remote RSS feature. Requires a wireline with modem at both ends. Standard Remote RSS feature allows the use of RSS from a remote location.	7.200	300	Ψ200.00
Remote Control			
Description	Nomenclature	APC	Price
•			
ADD: ASTRO W/L INTFC V.24  NOT Compatible with T5589-ASTRO-TAC Receiver or X437 *Provides a connection to an external digital link. REQUIRED for ASTRO trunked and ASTRO simulcast systems and any hybrid link system.	X889	509	\$500.00
Manuals			
Description	Nomenclature	APC	Price
ADD: MANUAL, SERVICE	X432	509	\$200.00
Not Compatible with T5589-ASTRO-TAC Receiver. Currently only includes VHF, UHF and 800 MHz. models.	N TOL	000	Ψ200.00
DEL: FUNCTIONAL MANUAL	X287	509	(\$50.00)
Compatible with T5367 and T5589. This option deletes the standard manual included with every station/receiver. This option is recommended when multiple receivers/multiple stations will be used at the same site and one manual per receiver/station is not needed.			. ,

#### **Ethernet Kits**

DescriptionNomenclatureAPCPricePC ETHERNET SERVICE KITREX4430454\$156.00

Includes a 6 foot ethernet cable, 2 tees, Velcro insulating strip for each tee and two terminators. Required to utilize Ethernet Capability on Conventional/6809 Trunked Stations and Conventional Trunked Receivers.

Now proceed to select Cabinets and Racks, Kits and Accessories, or return to QUANTAR® General Information.

Data Compiled 02-Sep-2003 using DUP and all prices in USD

# INTELLIREPEATER® TRUNKING OPTIONS VHF, UHF 800 and 900MHz Bands

#### **General Information**

The following options are available on INTELLIREPEATER Trunking.

- 1. For trunked stations, Global System Assignments (TDR) must be current with Connect Tone, INTELLIREPEATER frequencies, and other selected options on the price pages.
- 2. For U.S. systems Base Station ID number must be current in TCMS.
- 3. ALL stations must be field programmed with the Radio Service Software (RSS) for:
  - o Site ID
  - o Base Station ID
  - Repeater Number
  - o Failsoft Mode
  - Control Channel
  - Number of stations at the site
  - Exact power output.
- 4. The salesperson is responsible for this information and should forward it to the field programmer or service shop.
- 5. Radio Service Software (RSS) is not shipped with the station, order from Aftermarket and Accessories Division. (1-800-422-4210)
- 6. 2.7 INTELLIREPEATER Add-On or Replacement Stations ship standard with a 10' DLAN Cable.
- 7. To see other pages: 6809 Trunking, 2.7 INTELLIREPEATER Trunking or Conventional Stations.

Consult Product Planner or the Product Group for more information.

# Ordering Requirements

STATION/SYSTEM TYPE	CABLING REQUIREMENT
SmartZone® CAI IR	Ethernet
SmartZone ASTRO® VSELP IR	DLAN
SmartZone Basic IR	Ethernet or DLAN depending on configuration
SmartZone Secure Transparent IR	Ethernet or DLAN depending on configuration

- 1. INTELLIREPEATER is no longer shipping with a standard DLAN cable, **except** for 2.7 INTELLIREPEATER® Add-On or Replacements.
- 2. THEREFORE, you **MUST order** either a DLAN cable (x148, X149, or X150) or an Ethernet Cable (X145, X146, X147, X841, or X844) when ordering 2.7 INTELLIREPEATER.
- 3. IR Site Termination Hardware (X843) **MUST** be order if an Ethernet cable option is selected. Only one set of termination hardware is required per site.
- 4. INTELLIREPEATER configured to support Software Downloads and Ethernet capability require option X843

- per site.
- 5. To connect an INTELLIREPEATER to a modem at the site link. One cable per site is needed. (TKN9016 or TKN9017)
- 6. When ordering Site Repeater, you MUST order a 10Base T-Ethernet Cable (X145, X146, X147, X841, & X844)

# **Options**

5)		
Nomenclature	APC	Price
X844	509	\$0.00
X844	281	\$0.00
X841	509	\$120.00
X841	281	\$120.00
X145	509	\$170.00
X145	509	\$170.00
X146	509	\$200.00
X146	509	\$200.00
X147	509	\$245.00
X147	509	\$248.00
rdware		
Nomenclature	APC	Price
X843	509	\$0.00
Nomenclature	APC	Price
X148	509	\$0.00
X149	509	\$200.00
	000	Ψ200.00
X150	509	\$245.00
Nomenclature	APC	Price
X122	509	\$2,000.00
	X844 X841 X841 X145 X145 X146 X146 X147 X147  X147  Irdware  Nomenclature X843  Nomenclature X148  X149  X150  Nomenclature	Nomenclature       APC         X844       509         X841       281         X841       281         X145       509         X145       509         X146       509         X147       509         X147       509         x147       509         x148       509         Nomenclature       APC         X148       509         X149       509         X150       509

Equips the station with an internal phone interconnect board for limited non-matrixed telephone interconnect capability. Not compatible with X183, Operates in Analog mode only.

Now proceed to select <u>Cabinet and Rack Options</u> or return to <u>QUANTAR General Information</u>.

# QUANTAR® SmartZone® System Release 2.7 INTELLIREPEATER® Options

#### **General Information**

The following options are available on 2.7 INTELLIREPEATER® Trunking.

- 1. Options and Field Replaceable Units (FRU's) on this page should **only** be used for add-on or replacement INTELLIREPEATER® to an existing SmartZone® 2.7/2.7E System.
- 2. **DO NOT use** these options or FRU's for NEW SmartZone® Systems using 2.0.3 or beyond.
- 3. There are two reasons to use the options on this page. **DO NOT use** these options unless your customer configuration matches at least ONE of the scenario's listed below:
  - Add-on or replacement INTELLIREPEATER® are being ordered for an existing remote site using INTELLIREPEATER® with Release 2.7 firmware.
  - A new remote site is being added to a system using a Zone Controller/Zone Manager with Release 2.7/2.7E firmware.
- 4. To view other pages: 6809 Trunking, INTELLIREPEATER® Trunking, or Conventional stations

## **Order Requirements**

- This is **ONLY** for existing 2.7E SmartZone® Systems.
- Not for use with new SmartZone® Systems.
- This ordering information is necessary because of an incompatibility between Release 2.7/2.7E firmware and the current shipping firmware (Release 2.0.3 or beyond).
- The incompatibility affects the EPIC station control and wireline boards of the INTELLIREPEATER® station. Using the options or FRUs listed below will provide Release 2.7E firmware on the items affected.
- When X794 (2.7 MOL IR EPIC. WL) is ordered, the 2.7E System Family Option MUST be ordered.
- If this option (X794) is not ordered Tech Edit will not recognize the partially suffixed 2.7E System Family Option. This means that your station will ship with current firmware resulting in incompatibility.
- Choose one of the appropriate partially suffixed 2.7E System Family Option in COF. (X999 F or X999 G)

# **Options**

#### 2.7 Option

DescriptionNomenclatureAPCPriceALT: 2.7 MOL IR EPIC.WLX764509\$0.00

Always required for 2.7E operation. This must be ordered with the 2.7E System Family. If not TECH Edit will not recognize the partially suffixed 2.7E System Family which means the station will ship with current firmware resulting in INCOMPATIBILITY

#### **System Family**

DescriptionNomenclatureAPCPriceENH: 2.7 MOL SZ IR QTARX999 F675\$3,603.00

Now proceed to select other INTELLIREPEATER options or return to QUANTAR General Information.

# QUANTAR® Kits and Accessories

#### **Ordering Requirements**

#### **CONTROL BOARD INFORMATION:**

EPIC I FRU's (TLN3397 & TLN3398) will no longer be available as of Jan 1, 03. Use EPIC II FRU's (CLN1293 or CLN1294 IR) as a replacement.

- TTN4094 (EPIC Conv/6809) or TRN7900 (EPIC IR) choose one of the FRUs: TLN3397 or TLN3398.
  - o Replacements after 01/03 CLN1293 or CLN1294 IR
- 2. CLN6961 (EPIC II Conv/6809) or CLN6960 (EPIC IR) choose one of the FRUs: CLN1293 or CLN1294.
- 3. ASTRO-TAC receivers operating with CLN6873 order CLN1273.
- 4. CLN7692 (Epic IV) Chose FRU: DLN1229
- 5. When replacing a EPIC I board to an EPIC II a Wireline II board is required.

#### WIRELINE BOARD INFORMATION:

Wireline I FRU's (TLN3257 & TLN3258) will no longer be available as of Jan 1, 03. Use Wireline II FRU's CLN1295 (4 wire) or CLN1296 (8 wire) as a replacement.

- 1. TRN7477 (4 Wire) or TRN7667 (8 Wire) choose one of the FRUs: TLN3257 or TLN3258.
  - o Replacements after 01/03 CLN1295 (4 wire) or CLN1296 (8 wire)
- 2. CLN6955 (4 Wire) or CLN6956 (8 Wire) choose one of the FRUs: CLN1295 or CLN1296.
- 3. ASTRO-TAC receivers operating with TTN5041 order TLN3496.
- 4. ASTRO-TAC receivers operating with CLN6959 order CLN1303.
- 5. When replacing a Wireline I board with a Wireline II, a EPIC II board is required.

**ATTENTION:** When installing the Power Strip ( X407AA), the installer or user is responsible for compliance with applicable codes or regulations governing use of power strips as permanently mounted devices.

#### Accessories

# Installation Accessories

Description	Nomenclature	APC	Price
ISB50LNC2 BULKHEAD ARRESTOR 125-100	RRX4025	417	\$65.00
700-1000 MHz. Kit INSTALLED with the Antenna Transmission Line. Includes Bulkhead Mounting Hardware Kit with type "N" Connectors.			
T-1 ISB50 SERIES ROUND MEMBER MOUNT	RRX4032	417	\$15.00
Antenna lighting and surge suppressor kit is installed with the antenna transmission line. Includes bulkhead mounting hardware.			
LGTNG/SURGE ARRESTOR	RRX4021	262	\$50.00
Single phone line suppressor. Antenna lighting and surge suppressor kit is installed with the antenna transmission line. Includes bulkhead mounting hardware.	)		
DUAL LINE SUPPRESSOR	TRN4589	456	\$129.00
LGTNG-SURG ARRESTOR	RRX4034	262	\$72.00
110/220 V AC Line Surge Protector.			
HDW CABINET STACKING	TRN7750	272	\$21.75
Hardware for between 2 cabinets or modular racks that are stacked.			

Description	Nomenclature	APC	Price
FRU VHF RANGE 1 RECEIVER	TLN3250	509	\$1,000.00
When ordered with T5589 and T5367, compatible with both models.  FRU VHF RANGE 2 RECEIVER	TLN3251	509	\$1,000.00
When ordered with T5589 and T5367, compatible with both models.	1 LN323 I	509	φ1,000.00
FRU VHF RANGE 1 EXCITER	TLN3252	509	\$1,000.00
FRU VHF RANGE 2 EXCITER	TLN3253	509	\$1,000.00
FRU VHF 125W POWER AMP R1	TLN3379	509	\$2,800.00
FRU VHF 125W POWER AMP R2	TLN3254	509	\$2,800.00
FRU POWER AMPLIFIER QUANTAR VHF 25W	TLN3254 TLN3255	509	\$2,000.00
		303	Ψ2,000.00
UHF FR	Us		
Description	Nomenclature	APC	Price
FRU RECEIVER 403-433 MHZ QTRO RECEIVER	TLN3313	509	\$1,100.00
When ordered with T5589 and T5367, compatible with both models.			
Description	Nomenclature	APC	Price
FRU UHF RANGE 2 RECEIVER	TLN3314	509	\$1,100.00
When ordered with T5589 and T5367, compatible with both models.			
FRU UHF RANGE 3 RECEIVER	TLN3373	509	\$1,100.00
When ordered with T5589 and T5367, compatible with both models.	TI NI2074	500	¢4 400 00
FRU UHF RANGE 4 RECEIVER When ordered with T5589 and T5367, compatible with both models.	TLN3374	509	\$1,100.00
FRU EXCITER QUANTRO 403-433 MHZ	TLN3305	509	\$1,100.00
FRU EXCITER QUANTRO 438-470 MHZ	TLN3306	509	\$1,100.00
FRU UHF RANGE 3 EXCITER	TLN3375	509	\$1,100.00
FRU UHF RANGE 4 EXCITER	TLN3376	509	\$1,100.00
FRU UHF RG1 25W POWER AMP	TLN3443	509	\$2,300.00
FRU UHF RG2 25W POWER AMP	TLN3445	509	\$2,300.00
FRU UHF RG1 110 POWER AMP	TLN3444	509	\$3,200.00
FRU UHF RG2 110W POWER AMP	TLN3446	509	\$3,200.00
FRU UHF RG3 110W POWER AMP	TLN3448	509	\$3,200.00
FRU UHF RG4 100W POWER AMP	TLN3450	509	\$3,200.00
FRO OTIF RO4 TOOW FOWER AIME	1 LIN3430	509	φ3,200.00
800MHz F	RUs		
Description	Nomenclature	APC	Price
FRU 800 EXCITER	TLN3307	225	\$1,200.00
FRU 800 RECEIVER	TLN3315	225	\$1,200.00
When ordered with T5589 and T5367, compatible with both models.			
FRU 800MHZ 20W POWER AMP	TLN3441	225	\$2,600.00
FRU 800 100W POWER AMP	TLN3442	225	\$3,700.00
FRU: RECEIVER, 380-433 MHZ	DLN1215	509	\$1,000.00
FRU: EXCITER 380-433 MHZ	DLN1214	509	\$1,000.00
FRU: PA, 110W 380-433 MHZ	DLN1216	509	\$2,800.00
900MHz F	RUs		
Description	Nomenclature	APC	Price
FRU 900MHZ QUANTAR EXCITER	TLN3308	225	\$1,300.00
FRU 900MHZ QUANTAR RECEIVER	TLN3316	225	\$1,300.00
When ordered with T5589 and T5367, compatible with both models.			

#### **Power Supply FRUs**

Please contact AfterMarkets Accessory Division for all QUANTRO FRU's. (1-800-422-4210)

Please contact AfterMarkets Accessory Division for all C	QUANTRO FRU's. (1-8	800-422-4210	0)
Description	Nomenclature	APC	Price
FRU 625 W AC POWER SUPPLY	TLN3259	509	\$2,000.00
FRU 625 W AC PS W/BATT REV	TLN3260	509	\$2,300.00
FRU 265 WATT AC POWER SUPPLY	TLN3261	509	\$1,800.00
When ordered with T5589 & T5367 both compatible.			
FRU 265 W AC PS W/BATT REV	TLN3262	509	\$2,100.00
When ordered with T5589 & T5367 both compatible.			
FRU 600 W DC PS 24VDC	TLN3263	509	\$2,200.00
FRU 600W DC PS 48/60V DC	TLN3377	509	\$2,200.00
Control/Wireline FRI	Us		
Description	Nomenclature	APC	Price
FRU INTERNAL UHSO	TLN3459	509	\$2,000.00
FRU ASTRO MODEM	TLN3265	509	\$1,300.00
When ordered with T5589, T5367, and T5770			
FRU V.24 WIRELINE INTFC	CLN1185	225	\$500.00
IR PHONE BOARD	TLN3390	675	\$2,000.00
FRU MULTI-DROP UHSO CABLING	CLN1304	509	\$65.00
FRU SAM MODULE	TLN3364	509	\$1,000.00
FRU: EPIC III CTRL MOD	CLN1621	509	\$2,000.00
FRU: EPIC IV CTRL MOD	DLN1229	509	\$3,200.00
FRU EPIC II CTRL MOD-CONV/TRK	CLN1293	509	\$2,000.00
For Quantar Receivers operating with the CLN6961 control board number order this FRU	02.11.200	000	Ψ2,000.00
FRU EPIC II CONTROL MOD INTELLRPT	CLN1294	509	\$3,200.00
ASTROTAC RECEIVER EPIC CTL MOD	CLN1273	743	\$2,000.00
For Astro-Tac receivers operating with the CLN6873 control board number.			
FRU 4 WIRELINE MODULE	TLN3257	509	\$1,000.00
For Quantar Receivers operating with the TRN7477 or TRN7667 4 or 8 wireline board numbers or CLN6955 or CLN6956 4 or 8 wireline board numbers choose this FRU or TLN3258			
EPIC I FRU's (TLN3397 & TLN3398) will no longer be available as of Jan 1, 03. Use EPIC II FRU's (CLN1293 or CLN1294 IR) as a replacement.  Note: When replacing a EPIC I board to an EPIC II a Wireline II board is required.			
FRU 4 WIRELINE II MODULE	CLN1295	509	\$1,000.00
FRU 8 WIRELINE II MODULE	CLN1296	509	\$1,300.00
FRU EPIC CONTROL MOD DATA.	CLN1177	680	\$3,200.00
ASTRO TAC RECEIVER WIRELINE POWER SUPPLY	TLN3496	743	\$1,400.00
FRU ASTROTAC RECEIVER WL POWER SUPPLY II	CLN1303	743	\$1,400.00

#### **2.7 FRUs**

2.7 MOL EPIC IR STA CONTROL MOD CLN1188 301 \$3,200.00

DO NOT ORDER this FRU unless it is for the EXISTING 2.7E IntelliRepeater or an ADD-ON/Replacement 2.7E IntelliRepeater.

For Astro-Tac receivers operating with the CLN6959 wireline board.

Description FRU 2.7 MOL 4 WIRELINE MODULE DO NOT ORDER this FRU unless it is for the EXISTING 2.7E IntelliRepeater or an ADD ON/Replacement 2.7E IntelliRepeater.	Nomenclature CLN1189	<b>APC</b> 509	<b>Price</b> \$1,000.00		
Microphones and Speakers					
Description	Nomenclature	APC	Price		

Description	Nomenclature	APC	Price
MICROPHONE, LOCAL TEST, MOBILE, HT90	HMN1001	706	\$109.00
When ordered with C99ED/001C, for transmit audio and intercom.			
EXTERNAL SPEAKER AMPLIFIER	HSN1000	189	\$109.00
6 watt, 13.8 VDC local speaker			
HDW EXTERNAL SPEAKER	TRN7738	454	\$50.00

#### **Functional Manuals**

Description	Nomenclature	APC	Price
MANUAL QUANTER ALL BAND	6881095E05	509	\$66.25
Includes VHF, UHF 800 and 900 MHz.			
MAN INSTR ASTROTAC RCVR FUNCT	6881094E85	454	\$55.00
Functional Manual contains installation and configuration instructions, plus basic servicing.			

# Service Manuals

Description	Nomenclature	APC	Price
MANUAL SERV QUANTAR/QUANTRO	6881088E90	509	\$208.00
Includes VHE_UHE_800 MHz and 900 MHz_QUANTAR_UHE QUANTRO_800 MHz_and			

Includes VHF, UHF, 800 MHz and 900 MHz. QUANTAR, UHF QUANTRO, 800 MHz. and 900 MHz. QUANTRO models.

#### **Radio Service Software**

Description	Nomenclature	APC	Price
RSS QUANTAR QUANTRO RECEIVER	RVN5002	371	\$281.00
When using the RSS in conjunction with 500 MHz or faster PC's software download may NOT work. For QUANTAR with Ethernet Connections use DLN6455A for software download ONLY.			
PROGRAMMING CABLE	3080369E31	261	\$49.25
For RSS			
CONFIGURATION/SERVICE SOFTWARE	DLN6455	377	\$25.00
CCS allows upore to get perometers 8 view diagnostics. Lload w/6 v Base Bodies. Site			

CSS allows users to set parameters & view diagnostics. Used w/6.x Base Radios, Site Controllers, ATAC 9600 Comparator, 6.0 Qtr IR & replaces Qtr & Comparator RSS for SWDL only. A 10 Base2 to 10 BaseT adapter is required. CSS is on MOL free of charge. MOL/Resource Ctr/SW/2-Way/ASTRO 25 Family.

CSS Computer Reqts: OS: Win98, WinNT 4.0 (SP 6 or higher), WinME, Win 2000 Prof., Win XP Home Ed, Windows XP Prof. USB communication is not currently certified.

HW Reqts - Processor: 1 GHz or higher Pentium grade Proc, Memory: 128 MB RAM rec for Win 98/98SE/ME),128 MB RAM min for Win/ Win2000/Win XP

Hard Disk Space: 1 GB Drive w/300 MB min free space (Typical Install including Help Text & SWDL Mgr) or 100 MB min free space (Compact Install)

Peripherals: MS Win supported Mouse or Trackball, MS Win supported Serial Port & 10BT Ethernet Port for product communication, MS Win supported Printer Port for report printing, CD-ROM for SW installation

Now return to **QUANTAR General Information**.

Data Compiled 02-Sep-2003 using DUP and all prices in USD