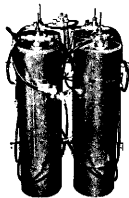
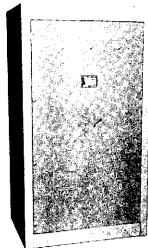


## HYBRID RING BASE STATION DUPLEXERS

### SUPERIOR COMMUNICATIONS EQUIPMENT THROUGH ADVANCED RESEARCH

- FOR REPEATER AND DUAL SIMPLEX OPERATION AT 0.5 TO 1.5 MHz FREQUENCY SPACING IN VHF
- MAINTENANCE-FREE PERFORMANCE
- 100 DB ISOLATION AT 500 KHz SEPARATION
- HIGH MINIMUM ISOLATION BETWEEN Tx AND Rx

F-201G and F-202G



F-207G  
TYPICAL RACK MOUNTING



NEW ENCLOSURE  
FOR RACK MOUNTING



F-101H

- 1.6 DB INSERTION LOSS
- 35 DB MINIMUM ISOLATION BETWEEN Tx AND Rx
- F-202G POWER RATING 475 WATTS
- F-201, F-207 RATED AT 375 WATTS
- F101H RATED AT 250 WATTS
- MODEL F-207G FOR INTERNAL RADIO CABINET MOUNTING

#### SINCLAIR HYBRID RING DUPLEXER SPECIFICATIONS

MODEL NO.	FREQ. RANGE (MHz)	MIN. FREQ. SPACING Tx to Rx (MHz)	ELECTRICAL				MECHANICAL			
			POWER (WATTS)	INSERTION LOSS (dB)	ATTENUATION (dB)		HEIGHT INCHES (mm)	DIMENSIONS		WEIGHT LBS. (KG)
					Tx OR Rx	Tx OR Rx		WIDTH INCHES (mm)	DEPTH INCHES (mm)	
F-101H	37-50	0.25	250	2.0	90+	C	83.3 (2115.8)	20.0 (508)	16.0 (406.4)	290 (132)
F-201GB	132-148	0.5	350	1.6	100	35 C	40.4 (1026.2)	22.0 (558.8)	17.2 (436.9)	132 (60)
F-202GB	-	0.5	475	1.6	100	35 C	40.4 (1026.2)	22.0 (558.8)	17.2 (436.9)	132 (60)
F207GB	-	0.5	350	1.6	100	35 R	33.0 (838.2)	19.0 (482.6)	± 7.5 (190.5)	60 (27)
F-201G	148-174	0.5	350	1.6	100	35 C	40.4 (1026.2)	22.0 (558.8)	17.2 (436.9)	132 (60)
F-202G	-	0.5	475	1.6	100	35 C	40.4 (1026.2)	22.0 (558.8)	17.2 (436.9)	132 (60)
F-207G	-	0.5	350	1.6	100	35 R	33.0 (838.2)	19.0 (482.6)	± 7.5 (190.5)	60 (27)

\*Minimum Attenuation Between Duplex Frequencies in db.

#### OTHER SPECIFICATIONS — ELECTRICAL

VSWR: 1.5 to 1 or less; Impedance: 50 ohms; Temp. Range: -12°C + 65°C. Insertion loss and Isolation values are for minimum frequency separations shown. Typically, Isolations increase with greater frequency separations. F-101H can be used down to 180 KHz separation with slightly greater loss and with reduced isolation.

#### OTHER SPECIFICATIONS — MECHANICAL

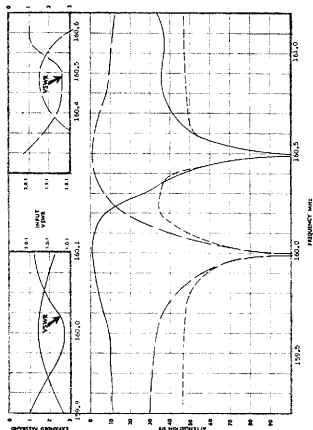
Connectors: Base N type, Mobile/Base UHF type unless otherwise specified. C—Cabinet; R—Rack; I—Integral Enclosure; ±—Distance either side of mounting flange. RE—Rack Enclosure, Consult Factory.

Sinclair Hybrid Ring duplexers have been in use in all parts of the world for longer than a decade. When duplexer requirements are being considered, the provision of 100 db isolation at both duplex frequencies is often not a complete solution. As frequency spacing decreases, the minimum isolation requirement between the transmitter and the receiver terminals increases due to greater transmitter noise levels. An important advantage of the Hybrid Ring family of duplexers is that the minimum attenuation level occurring at frequencies between the duplex operating frequencies is higher than that usually provided by conventional notch filter circuits. A ruggedized version for severe shock and vibration conditions can be provided in V.H.F. and should be requested as the F-203G (350 watts) or F-204G (475 watts). Weatherproof housings are also available for VHF Models and must be explicitly specified as "with weatherproof housing" when ordering. Specify Tx and Rx frequencies also on all models.

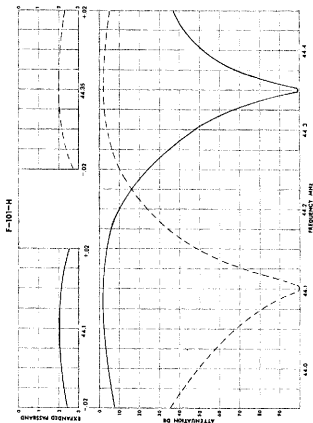
## PERFORMANCE CURVES

LOW PASS TO ANTENNA \_\_\_\_\_ HIGH PASS TO ANTENNA \_\_\_\_\_  
 LOW PASS TO HIGHPASS, ANTENNA TERMINATED - - - - -

F-201G F-202G F-207G



F-101H



PLEASE SPECIFY DUPLEX FREQUENCIES WHEN ORDERING.