



DFP-106D UHF SATCOM (DAMA)

ANTENNA DIPLEXER- PREAMPLIFIER FULL DUPLEX OPERATION



DESCRIPTION

The MPI Model DFP-106D integrates a high selectivity UHF SATCOM diplexer and a low noise preamplifier into a single unit. This configuration allows a single antenna to be operated with a UHF SATCOM transmitter (291-318.3 MHz) and a SATCOM receiver (243-270 MHz), in a full duplex mode. Locating the DFP-106D as close as possible to the antenna will provide a low receiver noise figure as the preamplifier gain will compensate for cable loss. (The diplexer protects the preamplifier from the transmitter signal, thereby eliminating the need for external filters, isolators and switches.)

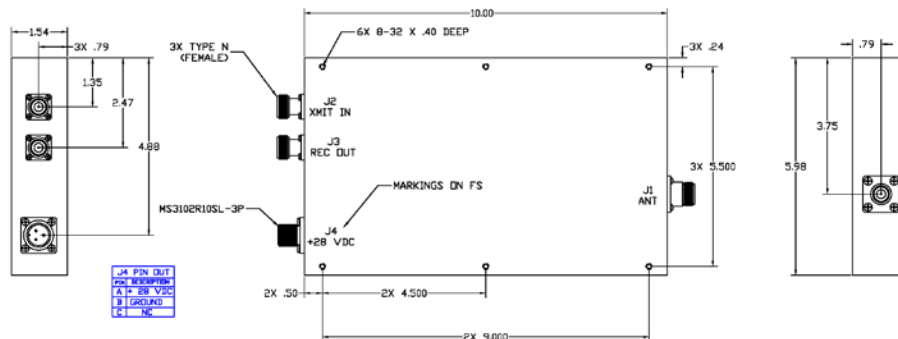
FEATURES

- Low Noise Figure LNA
- High Selectivity – Allows Full Duplex Operation
- DAMA/Mini-DAMA compatible



DFP-106D

ANTENNA DIPLEXER - PREAMPLIFIER



ELECTRICAL SPECIFICATIONS

RECEIVE CHARACTERISTICS, J1 to J3

Passband Rolloff, 243-270 MHz	1.5 dB max.
VSWR, 243-270 MHz	1.5:1 max.
Stopband	
0-180 MHz	90 dB min.
180-218 MHz	60 dB min.
291-512 MHz	90 dB min.
512-1000 MHz	60 dB min.
Gain, 243-270 MHz	30 dB min.
Noise Figure, 243-270 MHz	2.5 dB max.
Input @ 1 dB gain compression	-18 dBm min.
Input signal, max.**, 243-270 MHz	1W, CW
Intercept point, third order	+22 dBm nom.
Rejection, J2 to J3	
0-228 MHz*	95 dB min.
240-270 MHz*	30 dB min.
291-512 MHz*	75 dB min.

TRANSMIT CHARACTERISTICS, J2 to J1

Passband	291-318.3 MHz
Insertion Loss, 295-315 MHz	0.8 dB max.
Insertion Loss over passband	1.0 dB max.
Input Power	+21.5 dBW max.
VSWR, 291-318.3 MHz	1.4:1 max.
Stopband	
0-250 MHz	90 dB min.
250-270 MHz	60 dB min.
355-400 MHz	60 dB min.
400-1000 MHz	90 dB min.

GENERAL CHARACTERISTICS

Power	
Voltage	+21 to +32 VDC
Current, steady state	100 mA max.
Environment	Airborne/ Shipboard
Temperature	
Operating	-55°C to +70°C
Storage	-57°C to +85°C
Size, excluding connectors	10.00" x 5.98" x 1.54"
Weight	5 lbs. max.
Connectors	
J1 - ANTENNA	Type N (Female)
J2 - TRANSMIT IN	Type N (Female)
J3 - RECEIVE OUT	Type N (Female) or TNC (Female)
J4 - +28 VDC	MS3102R-10SL-3P
Finish	Black Flat

* Includes Gain of Preamplifier
 ** Protection Level, higher beyond passband

REV: 10/25/16