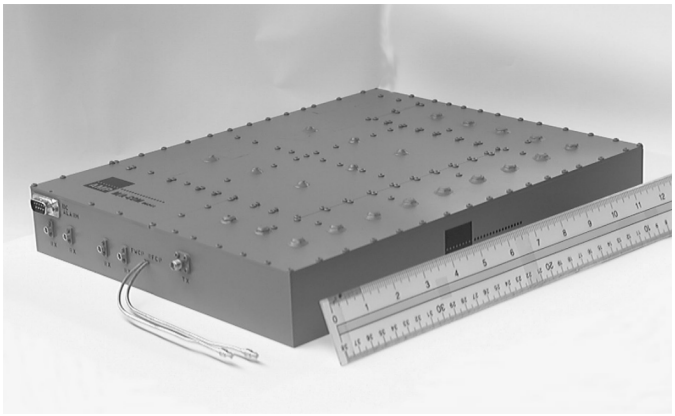
CDMA 900 MHz Diplexer/LNA

Features

- TX Passband 843 - 870 MHz
- RX Passband 915.325-924.675 MHz
- Low Transmit Insertion Loss < 0.6 dB
- Low Receive Noise Figure < 3.0 dB
- Typical Receive Path Gain 13 dB
- Typical Return Loss 18 dB
- RX to TX Rejections 85 dB
- TX to RX Rejections 97 dB to 3.0 GHz
- 1dB Compression Point +3.5dBm, typical
- Input Intercept Point +13dBm (Pin = -2 dBm)
- LNA Alarm Circuit
- Compact Size 13.39 x 10.63 x 2.05 inch

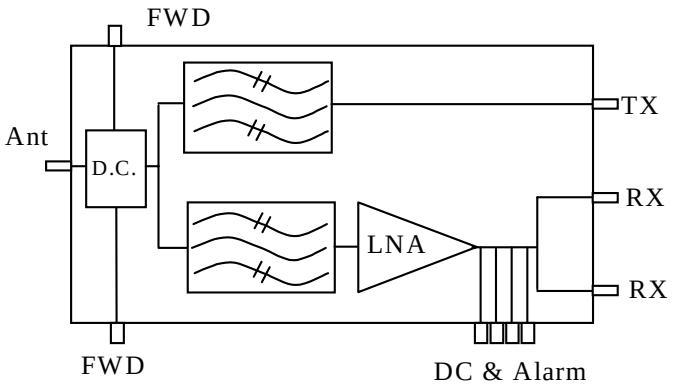


Description

M/A-COM's CDMA 900 Filter/LNA is ideally suited for all Basestation applications. The filter performance allows for 97dB rejection at 898 MHz, while the balanced LNA possesses excellent intermodulation performance, low noise figure and controllable gain.

Custom models can be designed to fit other electrical and mechanical requirements.

Functional Diagram



Typical Electrical Specifications[1], T_A= +25ºC

Parameters	Units	Min.	Typ.	Max.
TX Path				
Insertion Loss	dB	0.5	0.55	0.6
Return Loss	dB	15	18	22
Rejection at RX Band	dB	95	97	105
RX PATH				
Gain	dB	12	13.5	15
Return Loss	dB	15	18	20
Noise Figure	dB	2.2	2.4	3.0
Input Third Order Intercept	dBm	+12	+13	+15
1dB Compression Point	dBm	+3.0	+3.5	+4
Power and Current	V, mA	5, 170	5, 180	5, 190

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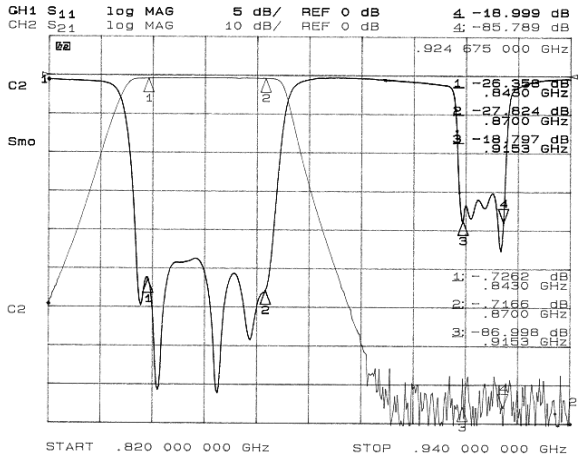
Absolute Maximum Ratings[1]

Parameter	Absolute Maximum
Input Power[1]	5 W CW
Operating Temperature	-25°C to +65°C
Storage Temperature	-65°C to 150°C

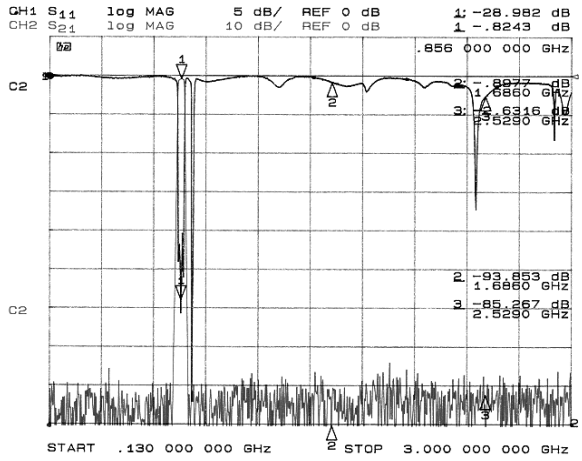
1. Exceeding these limits may cause permanent damage.

Typical Performance @ +25°C

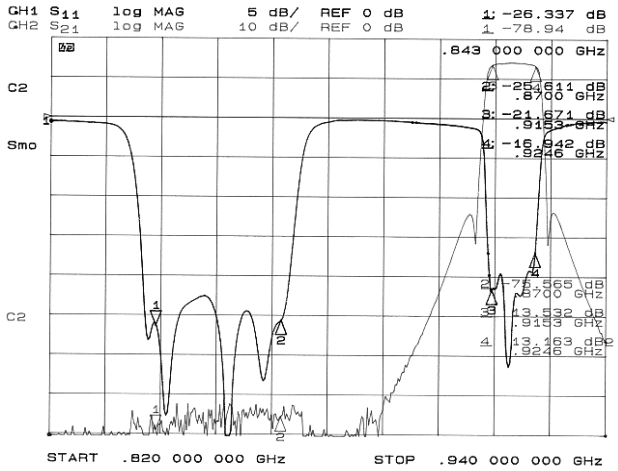
TX Path S11 & S21 vs. Frequency



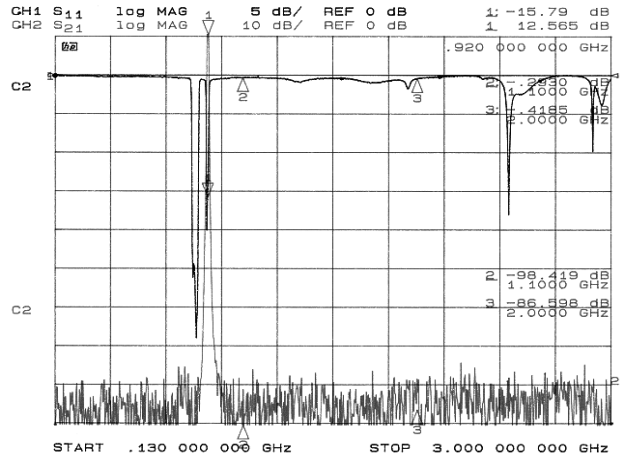
TX Path Rejections to 3 GHz



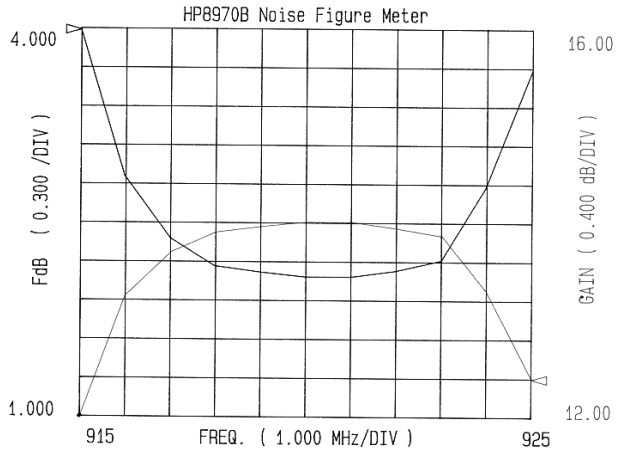
RX Path S11 & S21 vs. Frequency



RX Path Rejections to 3 GHz



RX Path Noise Figure & Gain



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