

FEM SERIES

RECEIVER FRONT END MODULES 2 GHz TO 26.5 GHz

APPLICATIONS

- Radar
 - IFF
 - Weather
 - Synthetic aperture
 - Instrumentation
- Radio
- SatCom

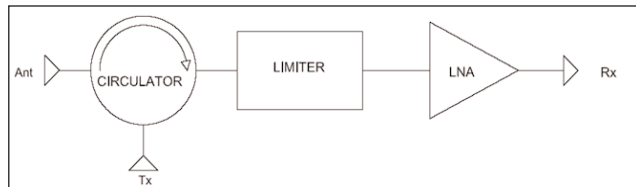


DESCRIPTION

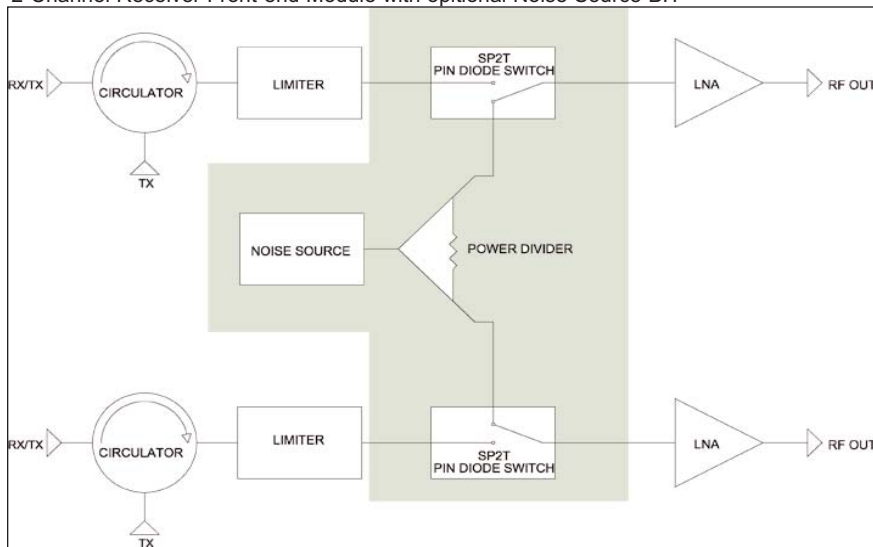
Micronetics has developed a series of Receiver Front-end Modules (FEM Series) that combine standard circuit functional elements into a single compact sealed housing. This series of multifunction modules combine elements that include limiters, circulators, LNAs and noise sources that can be switched in for built-in-test (BIT). By combining these elements into one circuit board design, noise figure is minimized due to reduction of the coaxial interconnections; additionally there are benefits that include smaller size and lower cost. Micronetics offers single and dual channel Receiver Front-End Modules, each design is verified for performance for all specification parameters including high power testing using a thermal imaging camera for maximum field reliability.

SINGLE AND DOUBLE CHANNEL FEM SCHEMATICS

1-Channel Receiver Front-end Module



2-Channel Receiver Front-end Module with optional Noise Source BIT



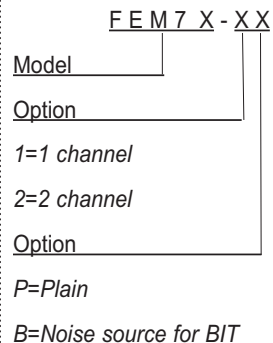
AVAILABLE MODELS

MODELS:	FEM7S	FEM7C	FEM7X	FEM7XKu	FEM7Ku	FEM7K
Freq	2-4 GHz	4-8 GHz	8-12 GHz	8-18 GHz	12-18 GHz	18-26.5 GHz
NF, 25°C	1.5	1.8	2.5	3.2	3.5	3.8
NF, 85°C	2.0	2.3	3.0	3.7	3.9	4.2
Gain, Min	22	21	20	19	18	16
Gain Flatness	1.2	1.2	1.2	1.5	1.5	1.8
Output P1dB	5.0	5.0	5.0	5.0	5.0	5.0
VSWR	1.5:1	1.5:1	1.8:1	2:1	2:1	2.5:1
Peak Power (W)	1000	1000	1000	800	1000	600
Avg Power (W)	50	50	50	40	50	30
Pulse Width	2 µSec	2 µSec	2 µSec	2 µSec	2 µSec	2 µSec

GENERAL SPECIFICATIONS

- Switching Speed: 200 nSec
- ENR@LNA Input: 14 - 18 dB
- Operating Temp: -55 to +85°C
- Storage Temp: -55 to +100°C

HOW TO ORDER



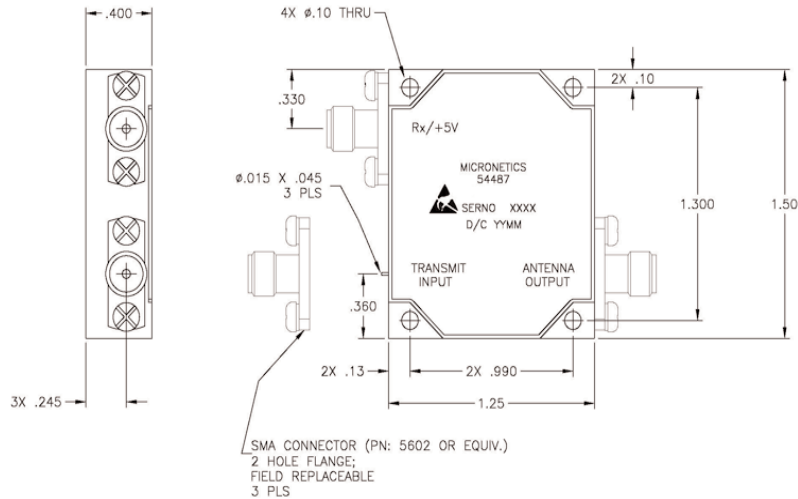
MICRONETICS

NOISE PRODUCTS

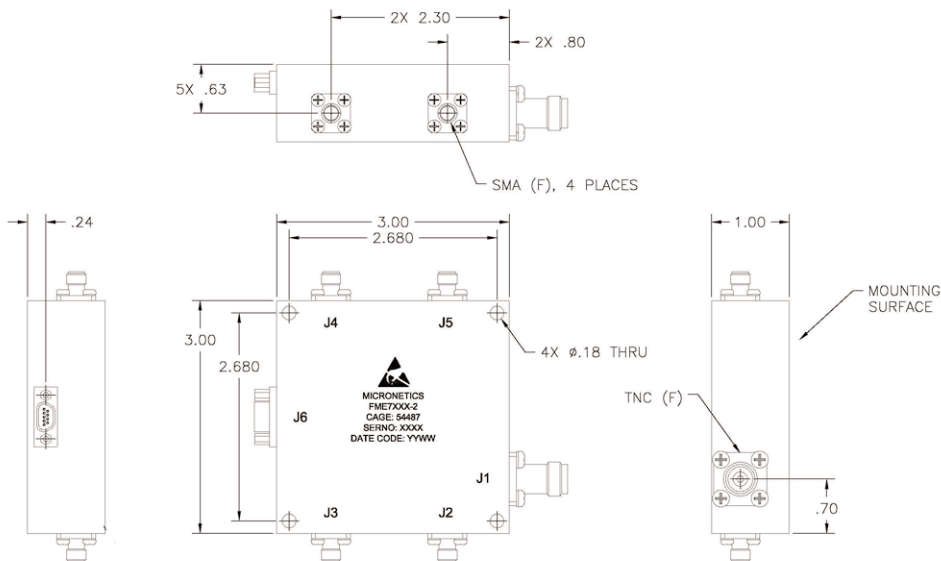
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FEM SERIES 1-CHANNEL OUTLINE DRAWING



FEM SERIES 2-CHANNEL OUTLINE DRAWING



STANDARD PRODUCT MODIFICATIONS AVAILABLE:

Micronetics is able to make minor alterations often for little or no non-recurring charges, within the scope from the list below. Contact us for additional information.

- Alternative RF Connectors
- Alternative DC/Control Connectors
- Alternative Finish
- Alternative electrical specifications such as a frequency range, power handling, more...
- Special ESS or electrical test requirements

MICRONETICS

NOISE PRODUCTS