

AMC-RFCRFS001B
RF Savvy Series
Nona-Band RF Coupler
For Smart Meter Remote Antennas



Features:

- Ultra Low Insertion loss ($S_{21} < 0.5\text{dB}$ @915MHz)
- Universal “Nona-band” (9 bands) operation for mesh, cellular, GPS and satellite network coverage:
 - 850/900/1800/1900/2100MHz
 - 900MHz & 2.45GHz ISM bands
 - 1616MHz (Iridium) & 1575MHz (GPS) Satellite bands
- 10kV electrical isolation
- UL 94V-0 rated coating

Application:

This RF Savvy series Nona-band RF coupler is an ultra low-loss, universal nine-band, stand-alone radio frequency coupler designed with a generic form factor suitable for use within the enclosure of most electric utility meters. The 10kV electrical isolation enables safe routing of the RF signal from the NIC or wireless modem to a remote external antenna via a bulk head connection in the meter base (not supplied).

Input and output RF connections are MMCX jacks (straight or right-angle) located either side of the PCB.



Specifications

Operating Frequencies	902-928MHz (ISM band) 824-960MHz (GSM 850/900) 1575MHz (GPS) 1616-1626.5MHz (Iridium) 1710-1990MHz (GSM1800/1900) 1920-2170MHz (WCDMA/3G) 2.45GHz (ISM band)
Input/Output Impedance	50 Ohms (nominal)
Max VSWR	<1.5:1 (all bands)
Insertion Loss	<0.5dB @ 824MHz-960MHz (typ) <1.0dB @ 1575MHz (typ) <1.0dB @ 1616MHz (typ) <1.5dB @ 1710-1990MHz (typ) <1.8dB @ 2170MHz (typ) <2.0dB @ 2.45GHz (typ)
Electrical Isolation (DC)	10kV (no damage)
Max RF Power	2 Watts (33dBm)
Dimensions	45 x 45 x 0.8mm
Connectors	MMCX (straight or right-angle)
Coating	UL 94V-0 rated
Operating Temperature	-40°C to +85°C

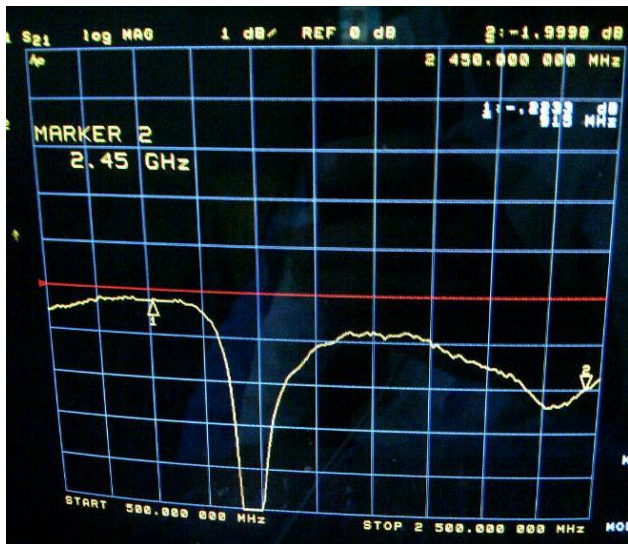


Fig. 1.0
Typical (S21) Insertion Loss

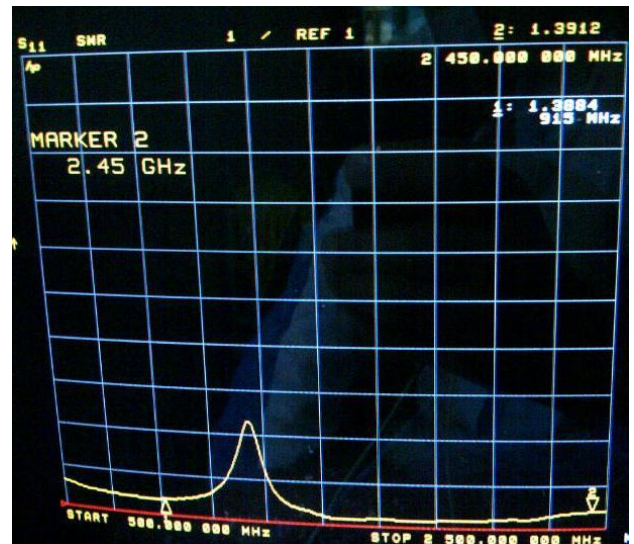


Fig. 2.0
Typical VSWR