

PCD018-V1 A/B/F + D AWS Twin MIMO Same Band Combiner

Features

- **Twin MIMO Combiner for LTE Overlay**
- **Low Loss (≤ 0.60 dB maximum)**
- **High TX-RX Isolation (≥ 30 dB)**
- **DC/AISG Configuration with External Plug**
- **Duplexed Inputs for Universal Installation**
- **Sealed to IP67 for Indoor or Outdoor Use**

Uplink (Rx) Specifications

Frequency Range - Ports BTS1A/1B:

A/B-blocks	1710 - 1730 MHz,
F-block	1745 - 1755 MHz
Average Insertion Loss (any 5 MHz)	0.40 dB max. (< 0.30 dB typical)

Frequency Range - Ports BTS2A/2B:

D-block	1735.25 - 1739.75 MHz
Average Insertion Loss	0.60 dB max. (< 0.40 dB typical)
Rx-Rx Isolation	20 dB minimum (22 dB typical)
EVM, WCDMA (A/B/F-blocks)	2% maximum (TM1, 64 DPCH, any 5 MHz channel)
EVM, LTE (D-block)	1% maximum (per TS 36.104)

Downlink (Tx) Specifications

Frequency Range - Ports BTS1A/1B:

A/B-blocks	2110 - 2130 MHz
F-block	2145 - 2155 MHz
Average Insertion Loss (any 5 MHz)	0.40 dB max. (< 0.30 dB typical)
Input Power (minimum)	150W CW, 2.5KW PEP

Frequency Range - Ports BTS2A/2B:

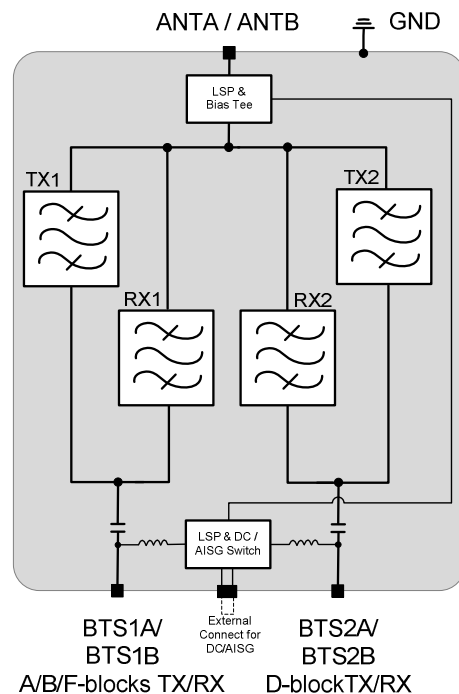
D-block	2135.25 - 2139.75 MHz
Average Insertion Loss	0.60 dB max. (< 0.40 dB typical)
Input Power (minimum)	75W CW, 1.25KW PEP
Tx-Tx Isolation	30 dB minimum (32 dB typical)
EVM, WCDMA (A/B/F-blocks)	2% maximum (TM1, 64 DPCH, any 5 MHz channel)
EVM, LTE (D-block)	1% maximum (per TS 36.104)
IMD in Rx Band	-117dBm max. (2x+43dBm tones)
Tx Power Conditions	2:1 Antenna VSWR, +50C case temp & 2500m altitude

Common Specifications

Rx-Tx/Tx-Rx Isolation	30 dB minimum (32 dB typical)
Return Loss (all ports)	18 dB minimum (22 dB typical)
Characteristic Impedance (RF ports)	50 ohms nominal



Block Diagram (one half only shown)



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DC/AISG Specifications

Ports 1A/1B to ANTA/B	Order 2 ea. CON-000231-V1
Ports 2A/2B to ANTA/B	Order 2 ea. CON-000231-V2
Transparency Path Selection:	Plug-In CON-000231-V1 or -V2
DC Transparency Power	+/- 32 VDC @ 2.0A max.
Voltage Drop @ 1.1A	0.3 V typical (0.5V max.)
Communications Band	2.176 MHz
Comm Band Insertion Loss	0.2 dB maximum
Comm Band Return Loss	20 dB minimum

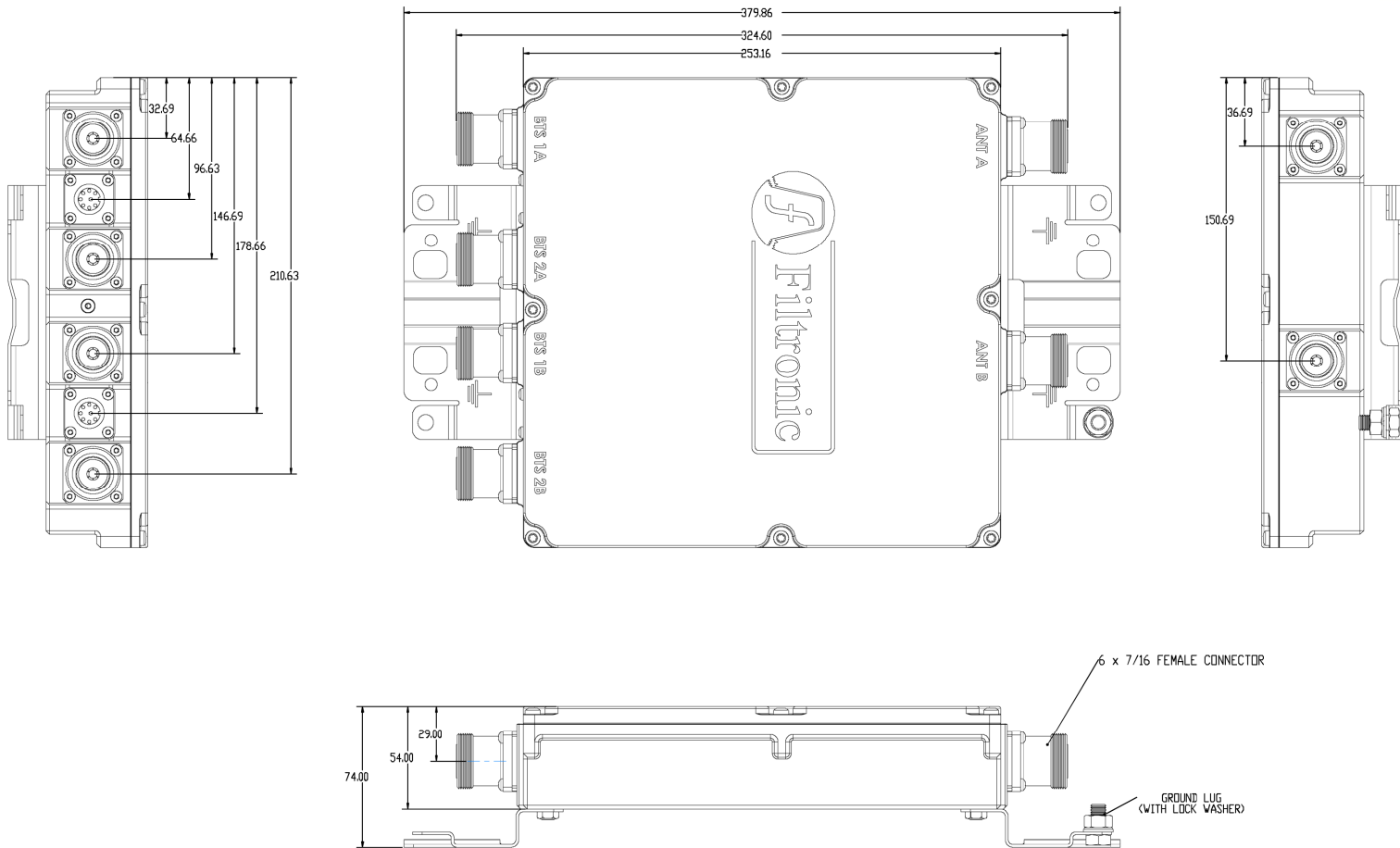
Weight	14.5 lbs (6.6 kg) nominal
Mounting Options	Wall or Pole mtg. via brackets
Finish/Color	Powder Coated/Light Gray
MTBF	> 1,000,000 Hours

Environmental Specifications

Operating Temperature	-40 °C to +65 °C
Altitude	Up to 3000m
Ingress Protection	IP67
RoHS/WEEE	Compliant
Salt Fog	GR-487
Lightning Protection	3kA per IEC 61312-1 (10/350 uS)
Transportation Shock & Vibration	Per ETS 300-019-1-4, class 4.1

Mechanical Characteristics

Connectors (RF)	7-16 DIN Female, Long Neck (x6)
Ground Connection	M8 Lug w/locknut provided
Dimensions (mm)	253.16 (D) x 250 (W) x 54 (H), excluding connectors and brackets



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