

# PCD021Twin AWS Contiguous Block Same Band Combiner

## Features

- **Combines Two Contiguous AWS Blocks w/Low Loss**
- **Duplexed Inputs for Universal Installation**
- **Low WCDMA & LTE EVM ( $\leq 5.5\%$  &  $1\%$  respectively)**
- **Low Loss ( $\leq 0.80$  dB typical)**
- **Good TX-RX Isolation ( $\geq 30$  dB)**
- **DC/AISG Configuration with External Plug**
- **IP67 Rated for Indoor or Outdoor Use**
- **Compact Size - Only One Unit Needed per Sector**

## Available Configurations

<b>AWS C + D Blocks:</b>	<b>Order PCD021-V1</b>
-BTS1 (C-block):	1730.25 - 1734.75 MHz & 2130.25 - 2134.75 MHz
-BTS2 (D-block):	1735.25 - 1739.75 MHz & 2135.25 - 2139.75 MHz
<b>AWS D + E Blocks:</b>	<b>Order PCD021-V2</b>
-BTS1 (D-block):	1735.25 - 1739.75 MHz & 2135.25 - 2139.75 MHz
-BTS2 (E-block):	1740.25 - 1744.75 MHz & 2140.25 - 2144.75 MHz
<b>AWS F1 + F2 Blocks</b>	<b>Order PCD021-V3</b>
-BTS1 (F1-block):	1745.25 - 1749.75 MHz & 2145.25 - 2149.75 MHz
-BTS2 (F2-block):	1750.25 - 1754.75 MHz & 2150.25 - 2154.75 MHz
<b>AWS E + F Blocks</b>	<b>Order PCD021-V4</b>
-BTS1 (E-block):	1740.25 - 1744.75 MHz & 2140.25 - 2144.75 MHz
-BTS2 (F-block):	1745.25 - 1754.75 MHz & 2145.25 - 2154.75 MHz
<b>AWS D/E + F Blocks</b>	<b>Order PCD021-V5</b>
-BTS1 (D/E-blocks):	1735.25 - 1744.75 MHz & 2135.25 - 2144.75 MHz
-BTS2 (F-block):	1745.25 - 1754.75 MHz & 2145.25 - 2154.75 MHz
<b>AWS C/D + E/F Blocks</b>	<b>Order PCD021-V6</b>
-BTS1 (E/F-blocks):	1740.25 - 1754.75 MHz & 2140.25 - 2154.75 MHz
-BTS2 (C/D-blocks):	1730.25 - 1739.75 MHz & 2130.25 - 2139.75 MHz
<b>AWS A + B Blocks</b>	<b>Order PCD021-V7</b>
-BTS1 (A-block):	1710.25 - 1719.75 MHz & 2110.25 - 2119.75 MHz
-BTS2 (B-block):	1720.25 - 1729.75 MHz & 2120.25 - 2129.75 MHz
<b>AWS C/D/E/F1 + F2 Blocks</b>	<b>Order PCD021-V8</b>
-BTS1 (C/D/E/F1-blocks):	1730.25 - 1749.75 MHz & 2130.25 - 2149.75 MHz
-BTS2 (F2-block):	1750.25 - 1754.75 MHz & 2150.25 - 2154.75 MHz

## Specifications

Average Insertion Loss	1.0 dB max. (< 0.80 dB typical)
Tx-Tx/Tx-Rx Isolation	30 dB minimum (32 dB typical)
Rx-Rx Isolation	18 dB minimum (22 dB typical)
Return Loss (all ports)	18 dB minimum (22 dB typical)
EVM, WCDMA	5.5% max. (any 3.84 MHz channel)
EVM, LTE	1% max. (per TS 36.104)
TX Input Power	75W CW, 1.25KW PEP (min., per band)
IMD in Rx Band	-117dBm max. (2x+43dBm tones)
Tx Power Conditions	2:1 VSWR, +50C case temp & 2500m altitude

## Mechanical Characteristics

Connectors (RF)	7-16 DIN Female, Long Neck (x3)
Ground Connection	M8 Lug w/locknut provided
Dimensions (mm)	400 (D) x 320 (W) x 109 (H), excluding connectors and brackets
Weight	40 lbs (18.2 kg) nominal
Mounting Options	Wall or Pole mtg. via brackets
Finish/Color	Powder Coated/Light Gray
MTBF	> 1,000,000 Hours

## EMEA

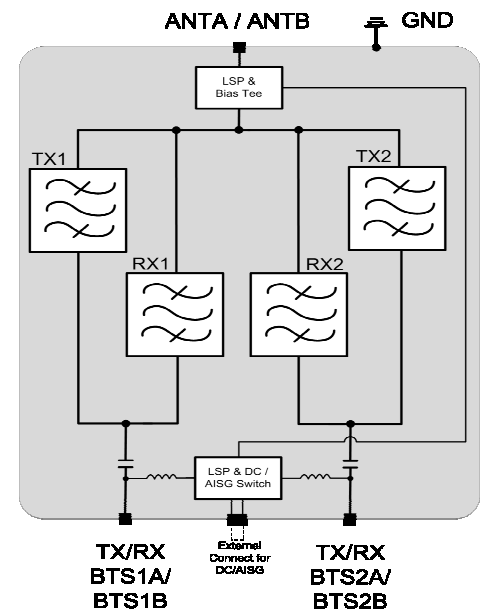
Filtronic Wireless Ltd  
Unit 3, Airport West  
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## Americas

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**Block Diagram (one half assy' shown)**



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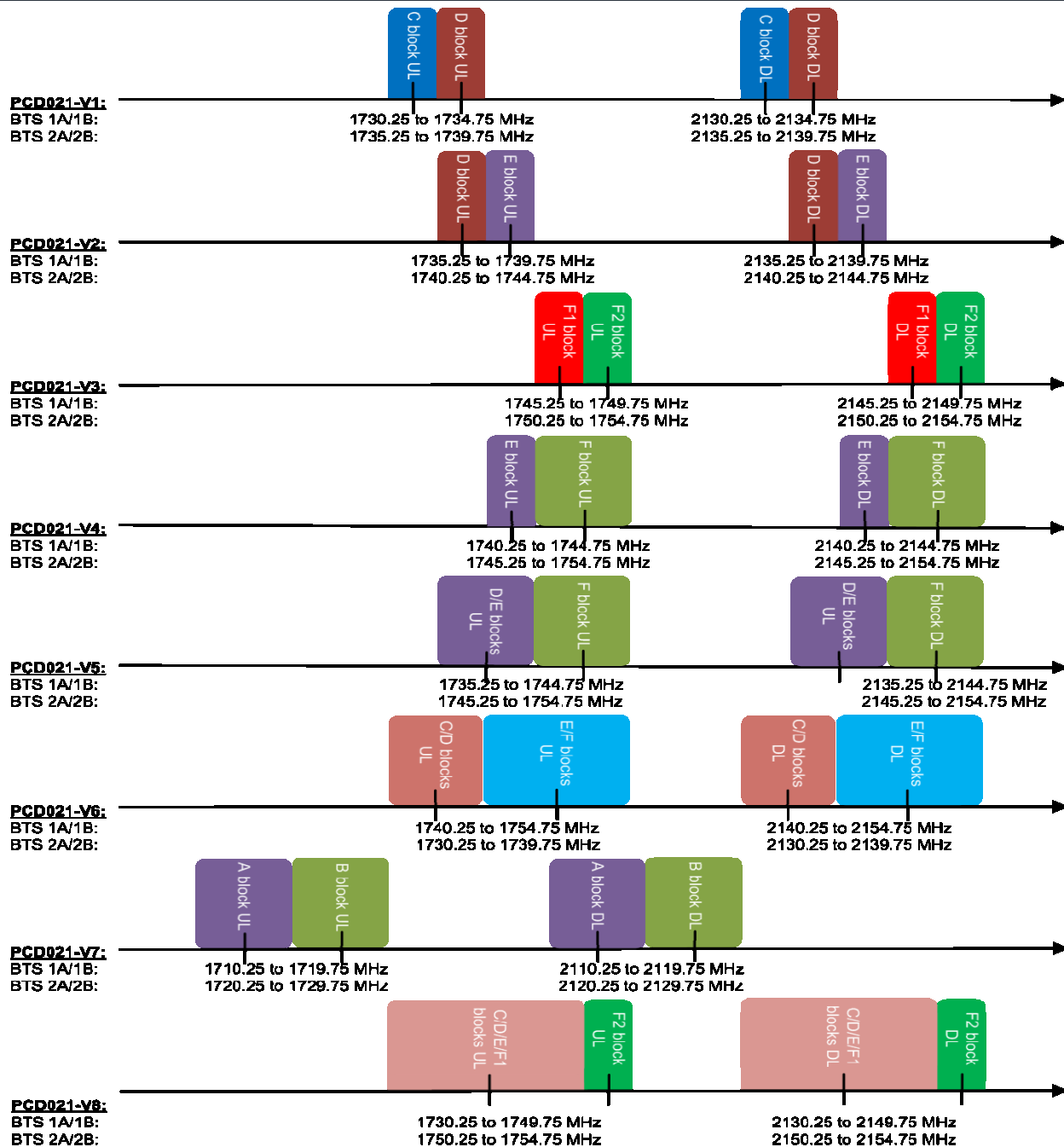
## DC/AISG Specifications

Transparency Path Selection:	Plug-In Connector
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

## 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 (10/350 us)	3kA per IEC 61312-1
Transportation Shock/Vibration	ETS 300-019-1-4, class 4.1

## Combining Configurations



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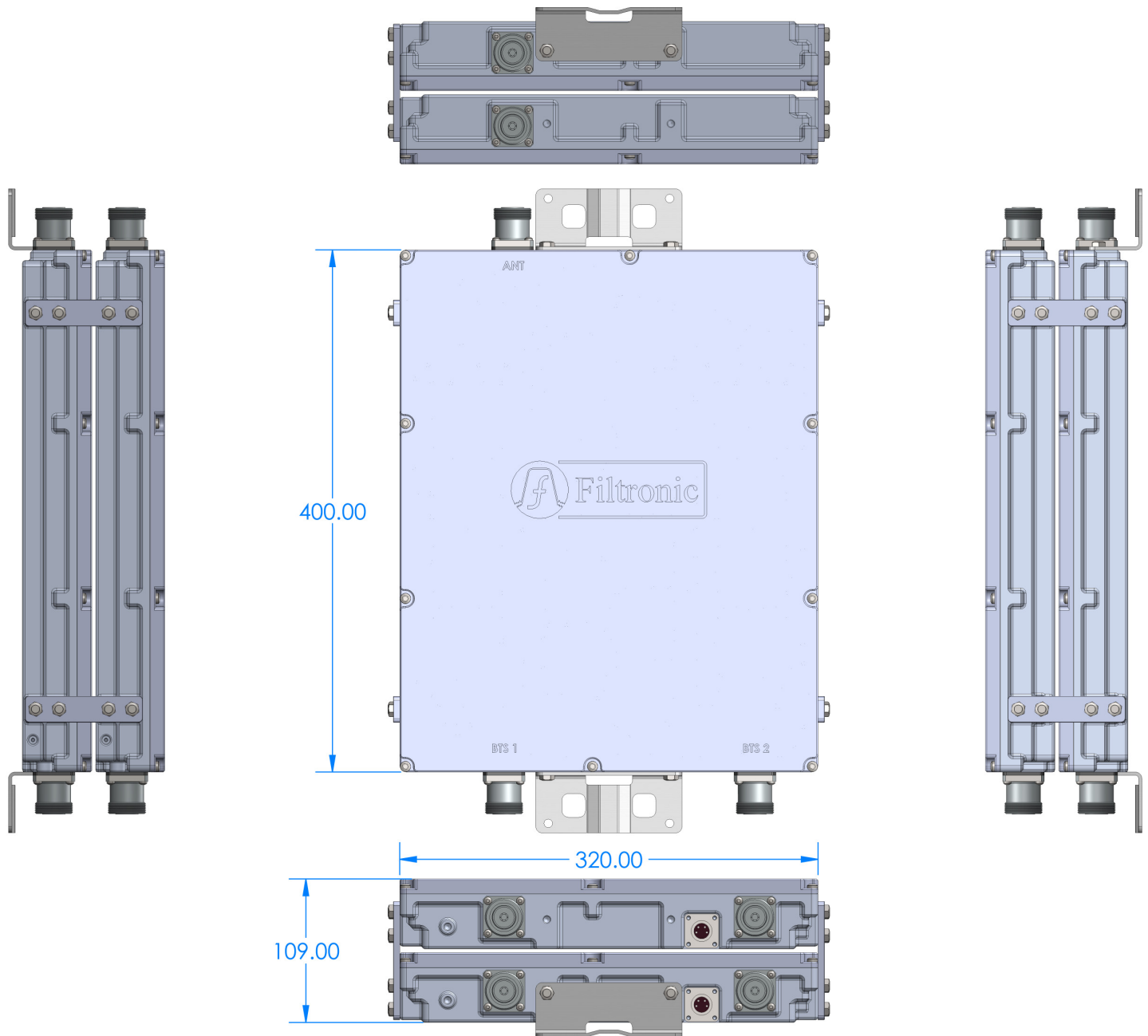
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# Filtronic

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## Outline Drawing



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