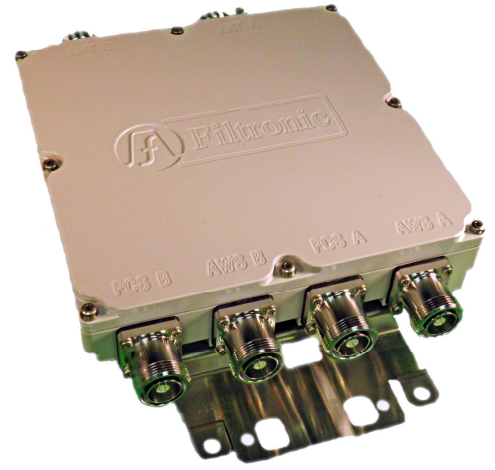


# PCC037 Twin PCS + AWS Crossband Combiner

## Features

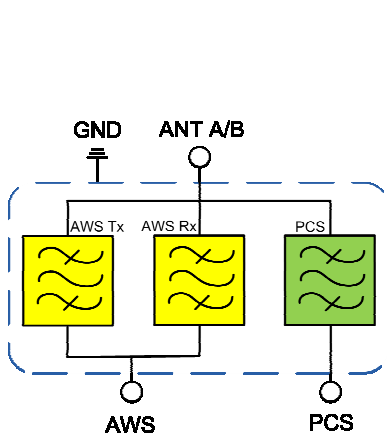
- **Low Loss AWS + PCS Crossband Combiner**
- **Low Loss ( $\leq 0.4$  dB max. AWS &  $\leq 0.3$  dB max. PCS)**
- **High Isolation ( $\geq 30$  dB under all conditions)**
- **High Return Loss ( $\geq 20$  dB for all Passbands)**
- **Excellent IMD Performance (-110 dBm maximum)**
- **Multiple Options Available for DC/AISG Transparency**
- **Two Crossband Combiners in a Single Package for Efficient, Space Saving Packaging**
- **Sealed to IP67 for Indoor or Outdoor Use**



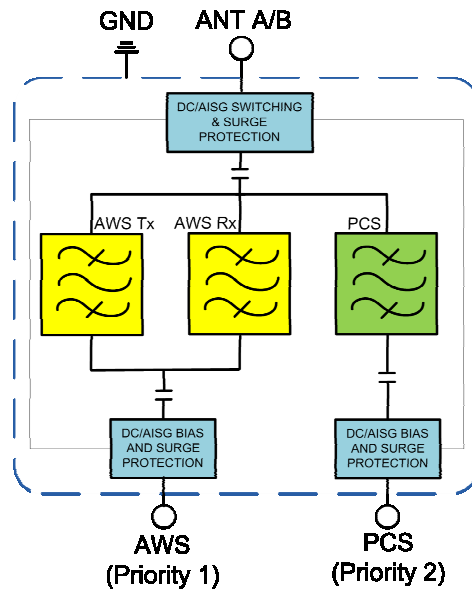
## Specifications

AWS Passband (Rx)	1710 - 1755 MHz
AWS Passband (Tx)	2110 - 2155 MHz
PCS Passband (Rx & Tx)	1850 - 1990 MHz
Insertion Loss:	
AWS Rx	0.40 dB max. (0.25 dB typ.)
AWS Tx	0.40 dB max. (0.20 dB typ.)
PCS Rx & Tx	0.30 dB max. (0.15 dB typ.)
Return Loss	20 dB min. (23 dB typ.)
Isolation	30 dB min. (32 dB typ.)
IMD in Rx Band	-110 dBm max. (2x+43dBm tones)
Tx Input Power (per port)	500W RMS, min., 2.0KW PEP, min.
Power Conditions	2:1 Antenna VSWR, +50C case temp & 2500m altitude

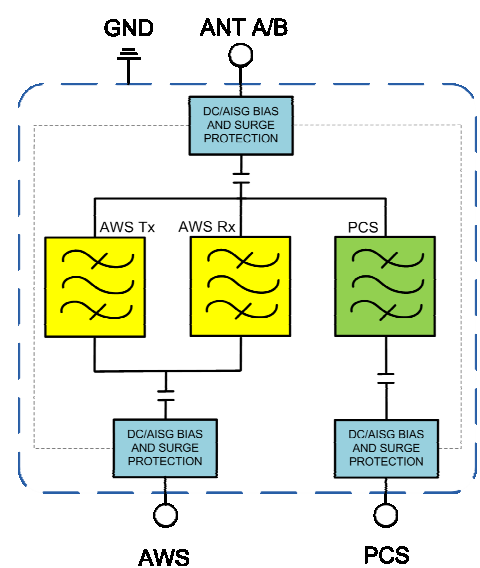
## Product Block Diagrams (one antenna path shown)



**-V1 Configuration (no DC feed through path)**



**-V2 Configuration (DC Auto-Sense feed through)**



**-V4 Configuration (Fixed AWS & PCS to ANT)**

**-V5 Configuration (Fixed AWS to ANT)**

**-V6 Configuration (Fixed PCS to ANT)**

### EMEA

Filtronic Wireless Ltd  
Unit 3, Airport West  
Lancaster Way,  
Yeadon, Leeds LS19 7ZA  
United Kingdom  
+44 (0)113 220 0000

### Americas

Filtronic Wireless Inc.  
700 Marvel Rd  
Salisbury, MD 21801  
United States of America  
+1 410 202 8811

### APAC

Isotek Telecommunications  
(Suzhou) Co. Ltd  
No.5 Chunhui Road, SIP  
People's Republic of China  
+86 1 386 215 1075



**Filtronic**

# PCC037 Twin PCS + AWS Crossband Combiner

## DC/AISG Specifications

Transparency Path:	No DC/AISG feed through
-V1	<i>Automatic Switching</i> from either AWS or PCS ports to ANT port per DC sense (AISG follows DC)
-V2 (AWS Priority)	
-V4	<i>Hard Wired</i> - AWS/PCS to ANT port
-V5	<i>Hard Wired</i> - AWS port to ANT port
-V6	<i>Hard Wired</i> - PCS port to ANT port
DC Transparency Power	+32V @ 2.5A max.
Voltage Drop @ 1A	1V typ. (-V2), 0.3V typ. (-V4/-V5/-V6)
Communications Band	2 to 15 MHz
Comm Band Insertion Loss	< 0.1 dB typical
Comm Band Return Loss	> 12 dB typical

## Environmental Specifications

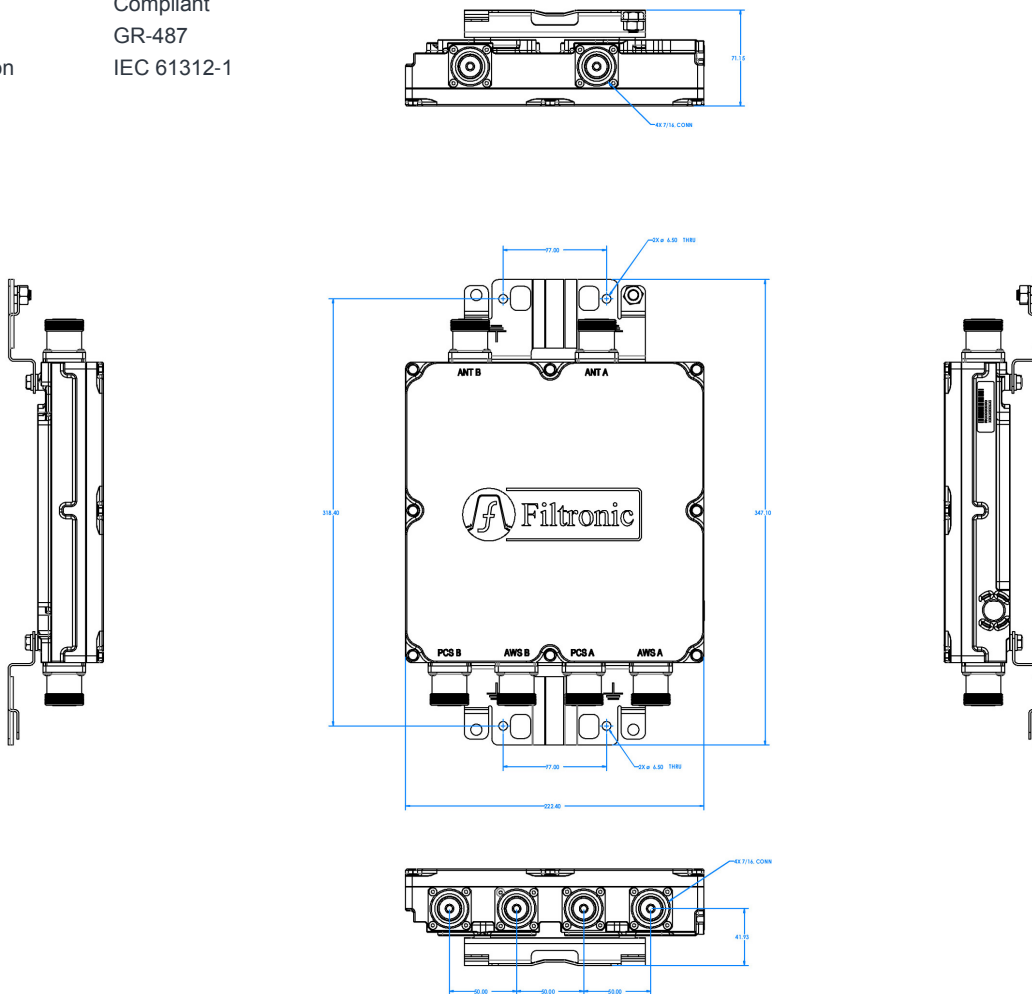
Operating Temperature	-40°C to +50°C
Altitude	2500m
Ingress Protection	IP67
RoHS/WEEE	Compliant
Salt Fog	GR-487
Lightning Protection	IEC 61312-1

## Mechanical Characteristics

Connectors	7-16 DIN Female, Long Neck
Chassis Grounding	M8 with two nuts/washers
Weight	11.5 lbs (5.2 kg)
Dimensions	347.10 x 222.4 x 71.5 mm 13.67 x 8.76 x 2.81 inches (including brackets & connectors)
Mounting Options	Wall, Tray or Pole Using Stainless Steel Brackets
Finish	Powder Coated
Color	Light Gray
MTBF	> 1,000,000 Hours

## Installation Instructions

Document No. PIM-CROSSBAND COMBINERS



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Filtronic Wireless Ltd  
Unit 3, Airport West  
Lancaster Way,  
Yeadon, Leeds LS19 7ZA  
United Kingdom  
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### Americas

Filtronic Wireless Inc.  
700 Marvel Rd  
Salisbury, MD 21801  
United States of America  
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### APAC

Isotek Telecommunications  
(Suzhou) Co. Ltd  
No.5 Chunhui Road, SIP  
People's Republic of China  
+86 1 386 215 1075



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