

PCS Quad In-Band Diplexer GB125, A/ADBEFCG Bands with AISG/DC Sense

• Automatic dc switching with dc sense

OBSOLETE This product was discontinued on: December 1, 2019

#### Product Classification

Product Type	Diplexer
General Specifications	
Application	Indoor   Outdoor
AISG Carrier	2176 KHz ± 100 ppm
Connector Interface	7-16 DIN Female
Connector Interface Style	Medium neck
Dimensions	
Height	465 mm   18.307 in
Width	365 mm   14.37 in
Depth	148 mm   5.827 in
Ground Screw Diameter	8 mm   0.315 in

dc/AISG Auto-Sense Logic

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DC	&	AISG	Logic
			0

BTS 1	BTS 2	ANT (DC/AISG)
> 7 \/	BTS 1 - ANT Switch ON	
>/\	>/\	BTS 2 - ANT Switch OFF
< 7 \/		BTS 1 - ANT Switch OFF
<td>BTS 2 - ANT Switch ON</td>	BTS 2 - ANT Switch ON	
>7V >7V	BTS 1 - ANT Switch OFF	
	BTS 2 - ANT Switch OFF	

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### Outline Drawing



## **Electrical Specifications**

3rd Order IMD Test Method	Two +43 dBm carriers
3rd Order IMD, maximum	153 dBm
Lightning Surge Current	10 kA
Lightning Surge Current Waveform	8/20 waveform

## Electrical Specifications, Rx (Uplink)

Frequency Band	1850.625 - 1855.625 MHz
Insertion Loss, maximum	1 dB
Insertion Loss, typical	0.8 dB

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Return Loss, minimum	18 dB
Isolation, minimum	28 dB
Isolation, minimum, specific	20 dB (±500 KHz from band edge)

### Electrical Specifications 2, Rx (Uplink)

Frequency Band	1856.875 – 1914.75 MHz
Isolation, minimum	28 dB
Isolation, minimum, specific	20 dB (±500 KHz from band edge)
Insertion Loss, maximum	1 dB
Insertion Loss, typical	0.8 dB
Return Loss, minimum	18 dB

#### Electrical Specifications, Tx (Downlink)

Frequency Band	1930.625 - 1935.625 MHz
Isolation, minimum	28 dB
Isolation, minimum, specific	20 dB (±500 KHz from band edge)
Input Power, PEP, maximum	3000 W
Total Group Delay, maximum	230 ns
Insertion Loss, maximum	1 dB
Insertion Loss, typical	0.8 dB
Return Loss, minimum	18 dB

#### Electrical Specifications 2, Tx (Downlink)

Frequency Band	1936.875 - 1994.75 MHz
Input Power, PEP, maximum	3000 W
Insertion Loss, maximum	1 dB
Insertion Loss, typical	0.8 dB
Isolation, minimum	28 dB
Isolation, minimum, specific	20 dB (±500 KHz from band edge)
Return Loss, minimum	18 dB
Total Group Delay, maximum	230 ns

#### Electrical Specifications, AISG

Insertion Loss, maximum

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1 dB



Return Loss, minimum

15 dB

#### Block Diagram



#### Environmental Specifications

Operating Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Ingress Protection Test Method	IEC 60529:2001, IP67
Packaging and Weights	
Included	Brackets
Weight, net	28 kg   61.729 lb

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