

Quad Quadplexer 617-960/AWS-WCS/PCS/ CBRS-C-Band, DC Sense, 4.3-10 connectors

- New Combining Solution to introduce 5G, 3.5GHz band
- BTS-to-feeder and feeder-to-antenna application
- New 4.3-10 connectors for improved PIM performance and size reduction
- Automatic dc switching with dc sense

Product Classification

Product Type Quadplexer

General Specifications

ColorGrayCommon Port LabelCOMMModularity4-Quad

Mounting Pole | Wall

Mounting Pipe Hardware Band clamps (2)

RF Connector Interface 4.3-10 Female

RF Connector Interface Body Style Long neck

Dimensions

 Height
 147 mm | 5.787 in

 Width
 205 mm | 8.071 in

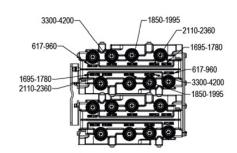
 Depth
 204 mm | 8.032 in

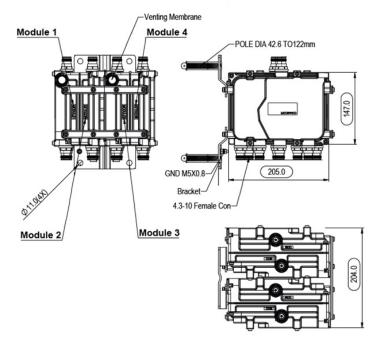
 Ground Screw Diameter
 5 mm | 0.197 in

 Mounting Pipe Diameter Range
 42.6–122 mm

Outline Drawing







Electrical Specifications

Impedance 50 ohm

License Band, Band Pass APT 700 | AWS 1700 | CEL 850 | CEL 900 | DCS 1800 | EDD 800 | IMT

2100 | IMT 2600 | LMR 750 | LMR 800 | LMR 900 | PCS 1900 | TDD

3500 | USA 600 | USA 700 | USA 750 | WCS 2300

Electrical Specifications, dc Power/Alarm

dc/AISG Pass-through MethodAuto sensingdc/AISG Pass-through PathSee logic table

Lightning Surge Current 5 kA

Lightning Surge Current Waveform 8/20 waveform

Pass-through Current, maximum 2 A

Voltage 7–30 Vdc

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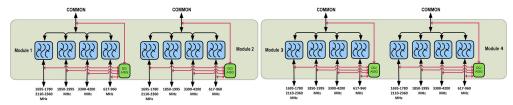
Electrical Specifications

Sub-module	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Branch	1	2	3	4
Port Designation	617-960	PCS	AWS-WCS	CBRS, C-Band
License Band	USA 700, Band Pass USA 750, Band Pass USA 600, Band Pass CEL 850, Band Pass CEL 900, Band Pass	PCS 1900, Band Pass	WCS 2300, Band Pass AWS 1700, Band Pass AWS 2000, Band Pass	TDD 3500, Band Pass

Electrical Specifications, Band Pass

Frequency Range, MHz	617-960	1850-1995	1695-1780 2110-2360	3300-4200
Insertion Loss, maximum, dB	0.3	0.3	0.3	0.3
Total Group Delay, maximum, ns	8	20	20	8
Return Loss, typical, dB	21	20	20	20
Isolation, minimum, dB	50 @ 1850-1995 50 @ 3300-4200 45 @ 1695-1780 2110-2360	50 @ 617-960 40 @ 1695-1780 50 @ 2110-2360 50 @ 3300-4200	50 @ 617-960 40 @ 1850-1995 50 @ 3300-4200	50 @ 617-960 50 @ 1695-2180 50 @ 1850-1995 50 @ 2110-2360
Input Power, RMS, maximum, W	120	120	120	80
Input Power, PEP, maximum, W	1200	1200	1200	800
3rd Order PIM, maximum, dBc	-155	-155	-155	-153
3rd Order PIM Test Method	2 x 20 W CW tones	2 x 20 W CW tones	2 x 20 W CW tones	2 x 20 W CW tones

Block Diagram



Logic Table



COMBINER mode priority table

Note: Valid DC input voltage range is 7-30V

SPLITTER mode:	COMMON	Port is a	split to	Ports	(1-4)	with	valid	impedano	:є

MODE	COMMON	PORT 617-960	PORT 1850-1995	3.3-4.2	PORT 1695-1780 2110-2360	COMMON	PORT 617-960	PORT 1850-1995	3.3-4.2	PORT 1695-1780 2110-2360
			Input Volt	age			s	electe	d Port	
	>7V	short	short	short	open/load	ON	OFF	OFF	OFF	ON
	>7V	short	short	open/load	short	ON	OFF	OFF	ON	OFF
	>7V	short	open/load	short	short	ON	OFF	ON	OFF	OFF
	>7V	open/load	short	short	short	ON	ON	OFF	OFF	OFF
1	>7V	short	short	open/load	open/load	ON	OFF	OFF	ON	ON
	>7V	short	open/load	short	open/load	ON	OFF	ON	OFF	ON
-	>7V	open/load	short	short	open/load	ON	ON	OFF	OFF	ON
Splitter	>7V	short	open/load	open/load	short	ON	OFF	ON	ON	OFF
I ≒	>7V	open/load	short	open/load	short	ON	ON	OFF	ON	OFF
100	>7V	open/load	open/load	short	short	ON	ON	ON	OFF	OFF
	>7V	short	open/load			ON	OFF	ON	ON	ON
1	>7V	open/load	short	open/load	open/load	ON	ON	OFF	ON	ON
1	>7V	open/load	open/load	short	open/load	ON	ON	ON	OFF	ON
1	>7V	open/load	open/load		short	ON	ON	ON	ON	OFF
	>7V	open/load	open/load	open/load	open/load	ON	ON	ON	ON	ON
	>7V	short	short	short	short	ON	OFF	OFF	OFF	OFF

Mechanical Specifications

 Wind Loading @ Velocity, frontal
 159.3 N @ 241 km/h (35.8 lbf @ 241 km/h)

 Wind Loading @ Velocity, lateral
 222.2 N @ 241 km/h (50.0 lbf @ 241 km/h)

Environmental Specifications

Operating Temperature $-40 \,^{\circ}\text{C} \text{ to } +65 \,^{\circ}\text{C} \, (-40 \,^{\circ}\text{F to } +149 \,^{\circ}\text{F})$

Relative Humidity Up to 100%

Corrosion Test Method IEC 60068-2-11, 30 days

Ingress Protection Test Method IEC 60529:2001, IP67

Packaging and Weights

Included Mounting hardware

Mounting Hardware Weight 0.2 kg | 0.441 lb

Weight, without mounting hardware 7.9 kg | 17.416 lb