



Triplexer, 555-894/PCS/AWS+WCS, dc Sense,4.3-10

- 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
- Convertible mounting brackets
- DC Load Sense in Feeder-to-Antenna applications

Product Classification

Product TypeTriplexer

General Specifications

Product FamilyCBC61923

ColorGray

Common Port LabelCommon

Modularity1-Single

MountingPole | Wall

Mounting Pipe HardwareBand clamps (2)

RF Connector Interface4.3-10 Female

RF Connector Interface Body StyleLong neck

Dimensions

Height176 mm | 6.929 in

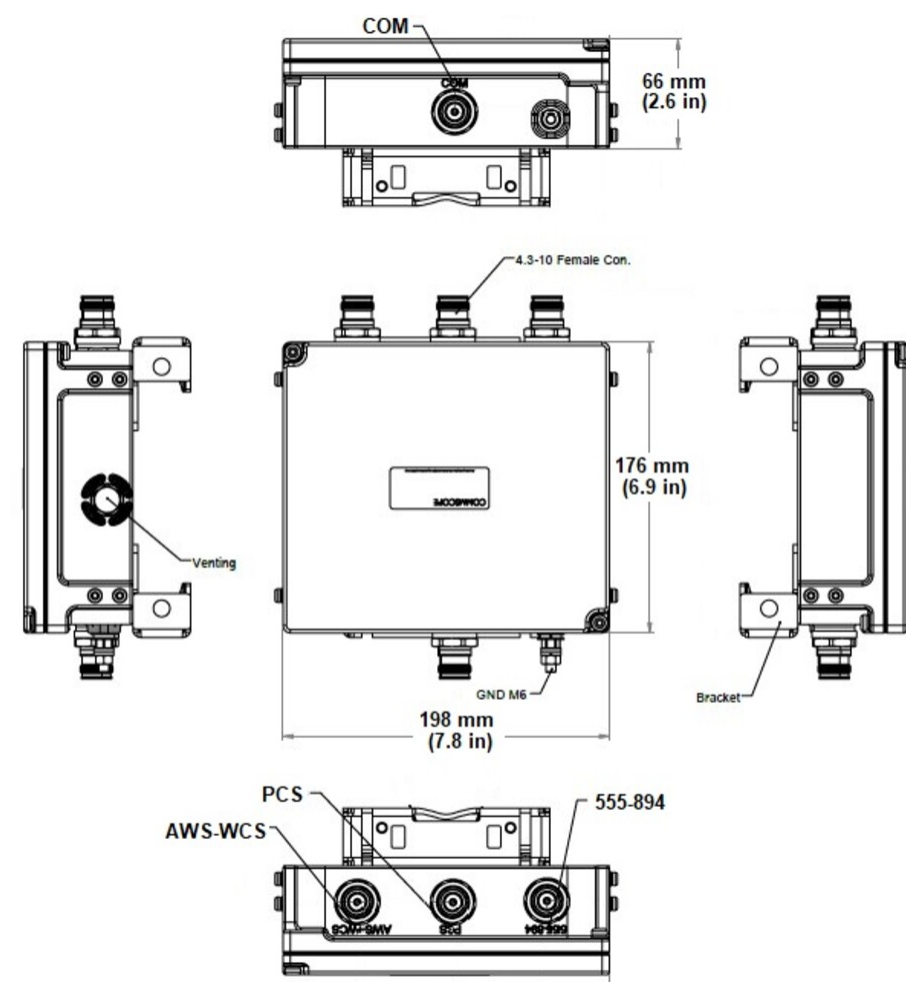
Width198 mm | 7.795 in

Depth66 mm | 2.598 in

Ground Screw Diameter6 mm | 0.236 in

Mounting Pipe Diameter Range40–160 mm

Outline Drawing



Electrical Specifications

Impedance	50 ohm
License Band, Band Pass	AWS 1700 CEL 850 LMR 750 PCS 1900 USA 600 USA 700 USA 750 WCS 2300

Electrical Specifications, Common Port

Composite Power, RMS	250 W
----------------------	-------

Electrical Specifications, dc Power/Alarm

dc/AISG Pass-through Method	Auto sensing
dc/AISG Pass-through Path	See logic table
Lightning Surge Current	10 kA
Lightning Surge Current Waveform	8/20 waveform

CBC61923-DS-43 | E14F10P57

Voltage 7–30 Vdc

Electrical Specifications, AISG

AISG Carrier	2176 KHz ± 100 ppm
Insertion Loss, maximum	1 dB
Return Loss, minimum	15 dB

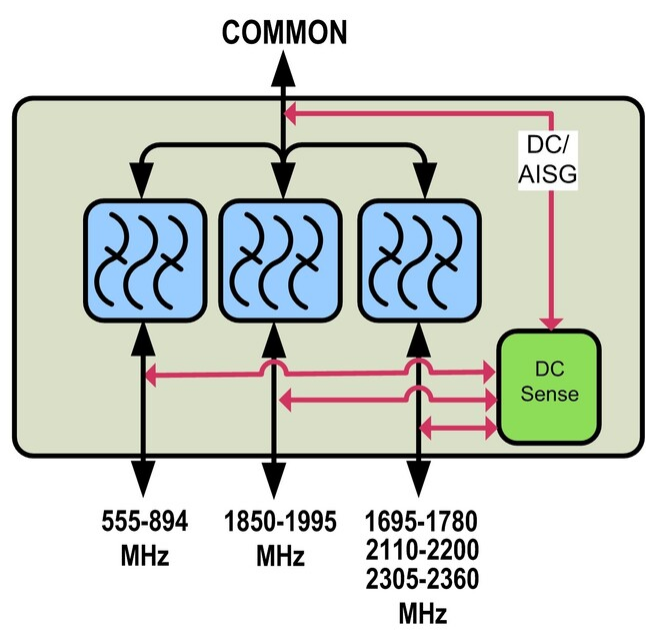
Electrical Specifications

Sub-module	1	1	1
Branch	1	2	3
Port Designation	555-894	PCS	AWS-WCS
License Band	CEL 850, Band Pass USA 700, Band Pass USA 750, Band Pass USA 600, Band Pass	PCS 1900, Band Pass	AWS 1700, Band Pass WCS 2300, Band Pass

Electrical Specifications, Band Pass

Frequency Range, MHz	555–894	1850–1995	1695–1780 2110–2200 2305–2360
Insertion Loss, typical, dB	0.1	0.25	0.25
Total Group Delay, maximum, ns	10	20	25
Return Loss, minimum, dB	21	21	21
Isolation, minimum, dB	50	50	50
Input Power, RMS, maximum, W	200	200	200
Input Power, PEP, maximum, W	2000	2000	2000
3rd Order PIM, maximum, dBc	-161	-161	
3rd Order PIM Test Method	2 x 20 W CW tones	2 x 20 W CW tones	
Higher Order PIM, maximum, dBc			-161
Higher Order PIM Test Method			2 x 20 W CW tones

Block Diagram



Logic Table

Combining Mode Operation (Ground Based)				
RF Ports Input Voltage				
555 to 894 MHz	PCS	AWS/WCS	COMMON	DC/AISG Path Selection
7 ≤ V ≤ 30	<7	<7	<7	555 to 894 MHz to COMMON "ON"
<7	7 ≤ V ≤ 30	<7	<7	PCS to COMMON "ON"
<7	<7	7 ≤ V ≤ 30	<7	AWS/WCS to COMMON "ON"
7 ≤ V ≤ 30	7 ≤ V ≤ 30	<7	<7	555 to 894 MHz to COMMON "ON"
7 ≤ V ≤ 30	<7	7 ≤ V ≤ 30	<7	AWS/WCS to COMMON "ON"
<7	7 ≤ V ≤ 30	7 ≤ V ≤ 30	<7	AWS/WCS to COMMON "ON"
7 ≤ V ≤ 30	7 ≤ V ≤ 30	7 ≤ V ≤ 30	<7	AWS/WCS to COMMON "ON"

Splitting Mode Operation (Tower Top)				
RF Ports Impedance DC (Load sensing)				
555 to 894 MHz	PCS	AWS/WCS	COMMON	DC/AISG Path Selection
open/load	short	short	7 ≤ V ≤ 30	COMMON to 555-894 "ON"
short	open/load	short	7 ≤ V ≤ 30	COMMON to PCS "ON"
short	short	open/load	7 ≤ V ≤ 30	COMMON to AWS/WCS "ON"
open/load	open/load	short	7 ≤ V ≤ 30	COMMON to 555-894 "ON" COMMON to PCS "ON"
open/load	short	open/load	7 ≤ V ≤ 30	COMMON to 555-894 "ON" COMMON to AWS/WCS "ON"
short	open/load	open/load	7 ≤ V ≤ 30	COMMON to PCS "ON" COMMON to AWS/WCS "ON"
open/load	open/load	open/load	7 ≤ V ≤ 30	ALL ports ON
short	short	short	7 ≤ V ≤ 30	ALL ports OFF

Environmental Specifications

Operating Temperature	-40 °C to +65 °C (-40 °F to +149 °F)
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	0.5 kg 1.102 lb
Volume	2.3 L
Weight, without mounting hardware	3.15 kg 6.945 lb