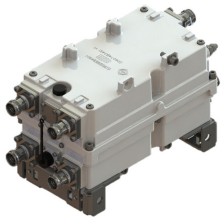
CDX623T-DS-T-43 | E16V95P63



Twin Diplexer,555–894 MHz/1695–2360 MHz, dc sense,4.3-10 Connectors, LOC-top

- Automatic dc switching with dc sense
- dc redundancy with dummy current sink
- Integrated layer one converter (AISG modem)
- New 4.3-10 connectors for improved PIM performance and size reduction
- Stackable in multiples with included hardware
- Convertible mounting brackets
- Feeder-to-antenna application

Product Classification

Product Type	Diplexer

General Specifications

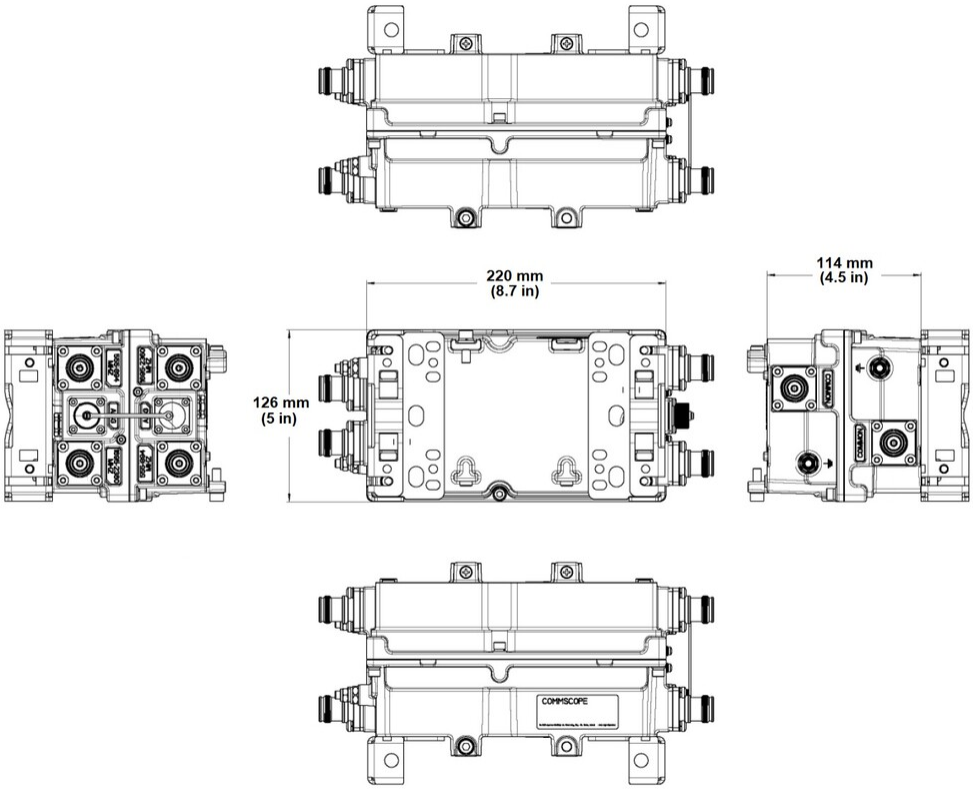
Product Family	CDX623
Color	Gray
Common Port Label	Common
Modularity	2-Twin
Mounting	Frame | Pole | Rack | Rod | Wall
Mounting Pipe Hardware	Band clamps (2)
RF Connector Interface	4.3-10 Female

Dimensions

Height	220 mm | 8.661 in
Width	126 mm | 4.961 in
Depth	114 mm | 4.488 in
Ground Screw Diameter	6 mm | 0.236 in
Mounting Pipe Diameter Range	40–160 mm

CDX623T-DS-T-43 | E16V95P63

Outline Drawing



Electrical Specifications

Impedance	50 ohm
License Band, Band Pass	APT 700 | AWS 1700 | CEL 850 | DCS 1800 | EDD 800 | IMT 2100 | LMR 750 | LMR 800 | PCS 1900 | USA 700 | USA 750 | WCS 2300

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
Operating Current at Voltage	35 mA @ 12 V | 37 mA @ 24 V
Voltage	10–30 Vdc

Electrical Specifications, AISG

AISG Carrier	2176 KHz ± 100 ppm

CDX623T-DS-T-43 | E16V95P63

AISG Connector	8-pin DIN Female
AISG Connector Standard	IEC 60130-9
Insertion Loss, maximum	0.5 dB
Return Loss, minimum	15 dB

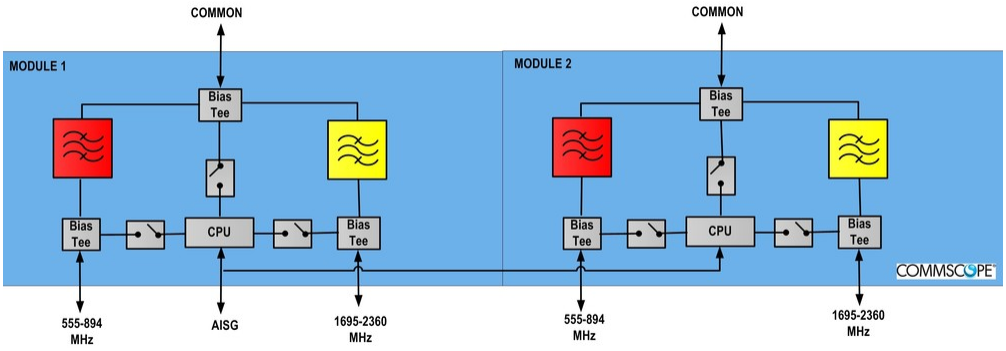
Electrical Specifications

Sub-module	**1 | 2**	**1 | 2**
Branch	1	2
Port Designation	555–894	1695–2360
License Band	APT 700, Band Pass CEL 850, Band Pass EDD 800, Band Pass LMR 750, Band Pass LMR 800, Band Pass USA 700, Band Pass USA 750, Band Pass	AWS 1700, Band Pass DCS 1800, Band Pass IMT 2100, Band Pass PCS 1900, Band Pass WCS 2300, Band Pass

Electrical Specifications, Band Pass

Frequency Range, MHz	**555–894**	**1695–2360**
Insertion Loss, maximum, dB	0.15	0.15
Insertion Loss, typical, dB	0.1	0.1
Total Group Delay, maximum, ns	10	10
Return Loss, minimum, dB	22	22
Isolation, minimum, dB	55	55
Input Power, RMS, maximum, W	500	500
Input Power, PEP, maximum, W	5000	5000
3rd Order PIM, maximum, dBc	-155	-155
3rd Order PIM Test Method	2 x 20 W CW tones	2 x 20 W CW tones

Block Diagram



Logic Table

Combining Mode Operation (Ground Based)				
RF Ports Input Voltage				
AISG Port	555–894 MHz	1695–2360 MHz	COMMON	DC/AISG Path Selection
<10	Any voltage	**>19 V**	<7	AISG "OFF" 555–894 MHz "OFF" **1695–2360 MHz to COMMON "ON"**
<10	**7≤ V ≤ 30**	<7 V	<7	AISG "OFF" **555–894 MHz "ON"** 1695–2360 MHz "OFF"
<10	<7 V	**7≤ V ≤ 30**	<7	AISG "OFF" 555–894 MHz "OFF" **1695–2360 MHz to COMMON "ON"**

Splitting Mode Operation (Tower top)				
RF Ports Input Voltage				
AISG Port	555–894 MHz	1695–2360 MHz	COMMON	DC/AISG Path Selection
Any 10-30 V	<7 V	<7 V	>7 V	**AISG "ON"** 555–894 MHz "OFF" 1695–2360 MHz to COMMON "OFF"

Environmental Specifications

Operating Temperature	-40 °C to +65 °C (-40 °F to +149 °F)
Relative Humidity	5%–100%
Corrosion Test Method	IEC 60068-2-11, 30 days
Ingress Protection Test Method	IEC 60529:2001, IP67

Packaging and Weights

Included	Mounting hardware
Volume	3.2 L
Weight, with mounting hardware	4.8 kg | 10.582 lb
Weight, without mounting hardware	4.5 kg | 9.921 lb

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system