CTX41727-DS-43 | E14F10P51

Triplexer 380-960/1695-2200/2300- 2700, DC-sense with 4.3-10 connectors

- BTS-to-feeder and feeder-to-antenna application
- Automatic dc switching with dc sense
- New 4.3-10 connectors for improved PIM performance and size reduction
- DC Load Sense in Feeder-to-Antenna applications
- Convertible mounting brackets
- Stackable in multiples with included hardware

Product Classification

Product Type	Triplexer

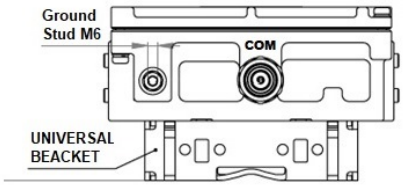
General Specifications

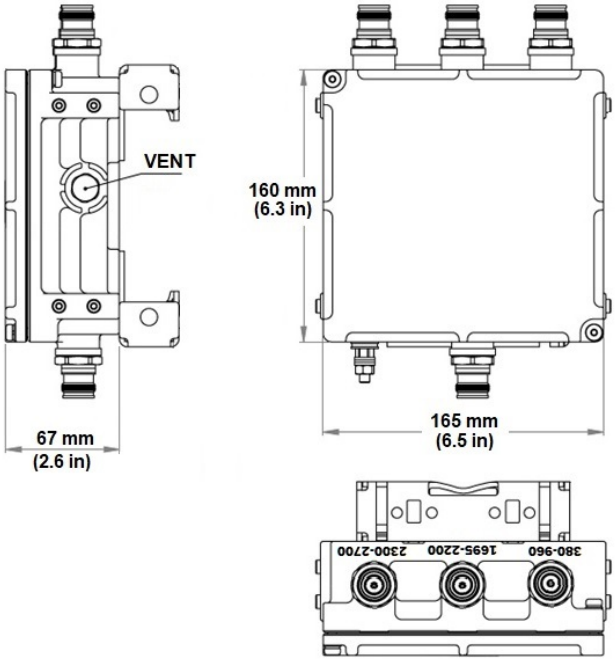
Product Family	CTX41727
Color	Gray
Common Port Label	COMM
Modularity	1-Single
Mounting	Pole | Wall
Mounting Pipe Hardware	Band clamps (2)
RF Connector Interface	4.3-10 Female
RF Connector Interface Body Style	Long neck

Dimensions

Height	160 mm | 6.299 in
Width	165 mm | 6.496 in
Depth	67 mm | 2.638 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 | 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
Voltage	7–32 Vdc

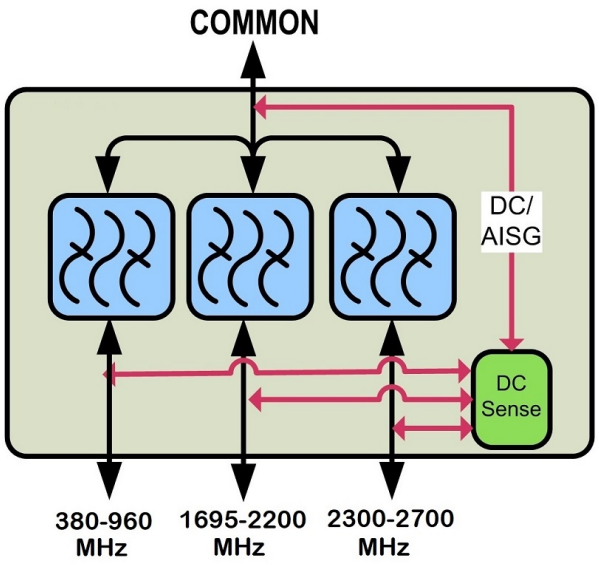
Electrical Specifications

Sub-module	**1**	**1**	**1**
Branch	1	2	3
Port Designation	380-960	1695-2200	2300-2700
License Band	CEL 850, Band Pass CEL 900, 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	IMT 2600, Band Pass WCS 2300, Band Pass

Electrical Specifications, Band Pass

Frequency Range, MHz	**380–960**	**1695–2200**	**2300–2700**
Insertion Loss, typical, dB	0.1	0.2	0.2
Total Group Delay, maximum, ns	20	25	25
Return Loss, typical, dB	20	20	20
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	-155	-155	-155
3rd Order PIM Test Method	Two +43 dBm carriers	Two +43 dBm carriers	Two +43 dBm carriers

Block Diagram



Logic Table

Combining Mode Operation (Bottom)					
PORT 1 380-960	PORT 2 1695-2200	PORT 3 2300-2700	COMMON		
RF Ports Input Voltage				DC/AISG Path Selection	DC/AISG PORT Priority
Any*	Any*	7 ≤ V ≤ 30	<7	380-960 MHz "OFF" 1695-2200 MHz "OFF" **2300-2700MHz "ON"**	PORT 3 [Highest] PORT 1 PORT 2 [Lowest]
7 ≤ V ≤ 30	Any*	<7	<7	**380-960 MHz "ON"** 1695-2200 MHz "OFF" 2300-2700MHz "OFF"	
<7	7 ≤ V ≤ 30	<7	<7	380-960 MHz "OFF" **1695-2200 MHz "ON"** 2300-2700MHz "OFF"	
<7	<7	<7	<7	ALL PORTS OFF	

* Any DC voltage applied in the ON (7-30V) or OFF (< 7V) ranges

Note: When two or more DC/AISG are available, port with higher priority is bypassed to common

Splitting Mode Operation (Tower Top)				
RF Ports Impedance DC (Load Sense)				
PORT 1 380-960	PORT 2 1695-2200	PORT 3 2300-2700	COMMON	DC/AISG Path Selection
Short	Short	Short	7 ≤ V ≤ 30	ALL PORTS OFF
Open/ Load	**Open/ Load**	**Open/ Load**	7 ≤ V ≤ 30	**ALL PORTS ON**
One or more port(s) are Open/ Load			7 ≤ V ≤ 30	DC/AISG will be be passed to ALL Open/Load port(s)

Note: In this mode DC/AISG will be passed to all detected ports and blocked at shortened ones

Mechanical Specifications

Wind Loading @ Velocity, frontal	34.0 N @ 150 km/h (7.6 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	7.0 N @ 150 km/h (1.6 lbf @ 150 km/h)

Environmental Specifications

Operating Temperature	-40 °C to +65 °C (-40 °F to +149 °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
Volume	1.8 L
Weight, without mounting hardware	2.5 kg | 5.512 lb