

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

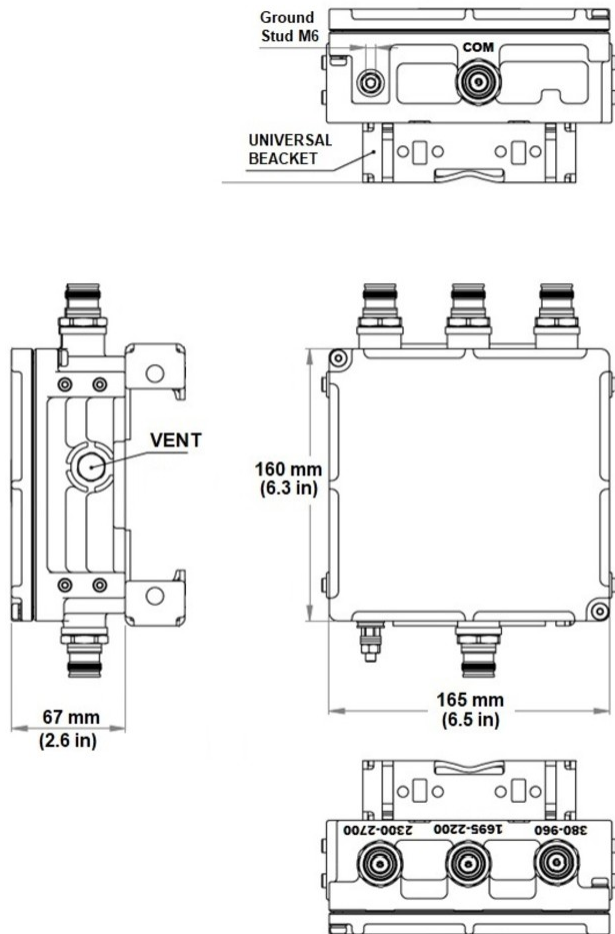
Width 165 mm | 6.496 in

Depth 67 mm | 2.638 in

Mounting Pipe Diameter Range 42.6–122 mm

Outline Drawing

CTX41727-DS-43 | E14F10P51



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

CTX41727-DS-43 | E14F10P51

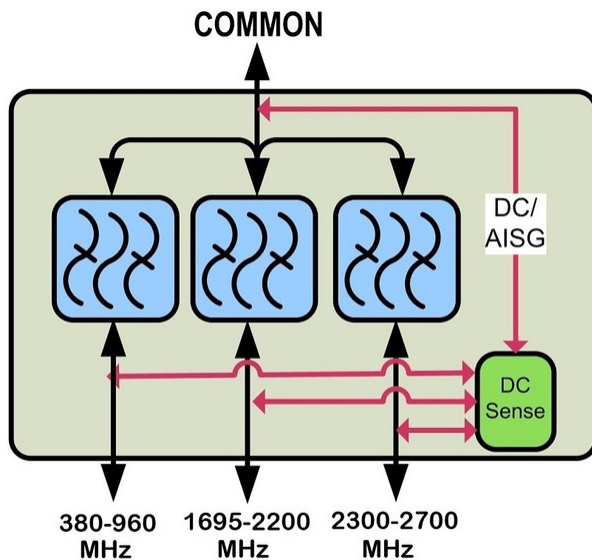
Electrical Specifications

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

CTX41727-DS-43 | E14F10P51

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
Any*	Any*	$7 \leq V \leq 30$	<7	380-960 MHz "OFF" 1695-2200 MHz "OFF" 2300-2700MHz "ON"
$7 \leq V \leq 30$	Any*	<7	<7	380-960 MHz "ON" 1695-2200 MHz "OFF" 2300-2700MHz "OFF"
<7	$7 \leq V \leq 30$	<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

DC/AISG PORT Priority
PORT 3 [Highest] PORT 1 PORT 2 [Lowest]

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	$7 \leq V \leq 30$	ALL PORTS OFF
Open/ Load	Open/ Load	Open/ Load	$7 \leq V \leq 30$	ALL PORTS ON
One or more port(s) are Open/ Load			$7 \leq V \leq 30$	DC/AISG will 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

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Above maximum concentration value
ROHS	Compliant/Exempted
UK-ROHS	Compliant/Exempted

