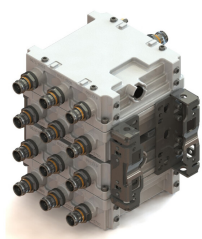


CTX41727Q-DS-43 | E14F10P53



Quad 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 4-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 160 mm | 6.299 in

Width 229 mm | 9.016 in

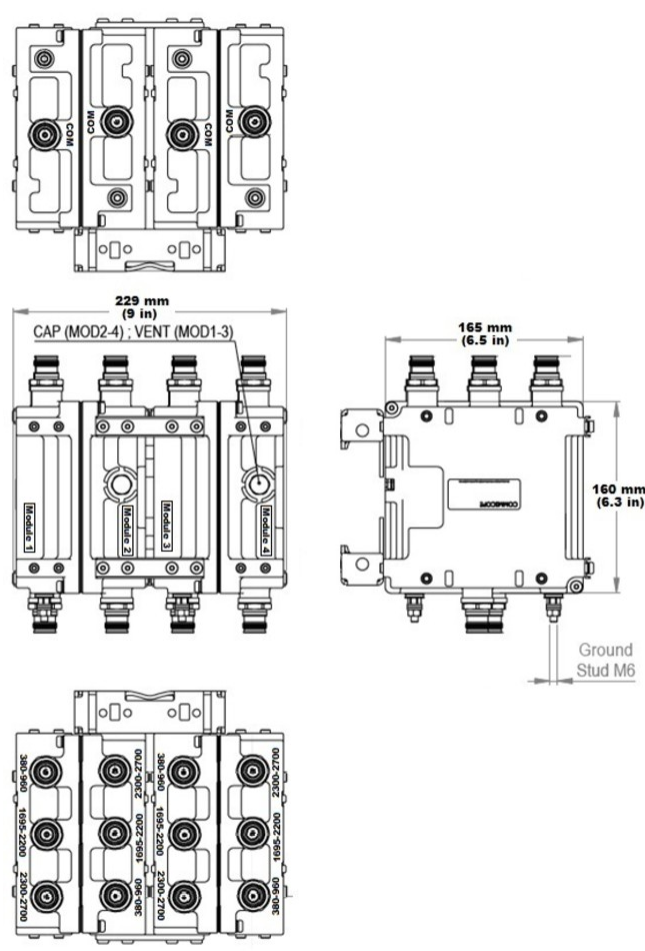
Depth 165 mm | 6.496 in

Ground Screw Diameter 6 mm | 0.236 in

Mounting Pipe Diameter Range 42.6–122 mm

Outline Drawing

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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 | 5 kA |
| Lightning Surge Current Waveform | 8/20 waveform |
| Voltage | 7–30 Vdc |

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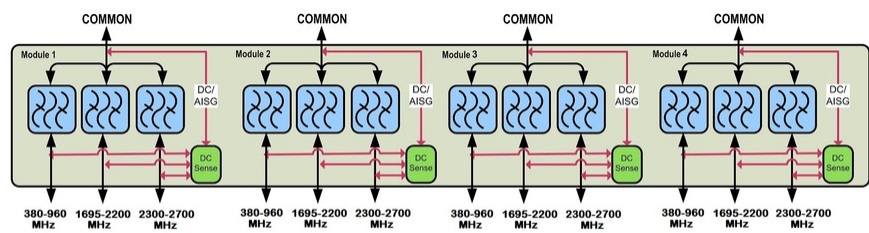
Electrical Specifications

| | | | |
|------------------|--|--|--|
| Sub-module | 1 2 3 4 | 1 2 3 4 | 1 2 3 4 |
| 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 | |
| Any* | Any* | 7 ≤ V ≤ 30 | <7 | 380-960 MHz "OFF" 1695-2200 MHz "OFF" 2300-2700MHz "ON" |
| 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 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

DC/AISG PORT Priority

PORT 3 [Highest]
PORT 1
PORT 2 [Lowest]

Mechanical Specifications

| | |
|----------------------------------|---|
| Wind Loading @ Velocity, frontal | 52.0 N @ 150 km/h (11.7 lbf @ 150 km/h) |
| Wind Loading @ Velocity, lateral | 29.0 N @ 150 km/h (6.5 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 | 6 L |
| Weight, without mounting hardware | 8.8 kg 19.401 lb |