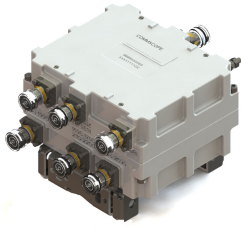


# CTX192126T-DS-43 | E14F60P09

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## Twin Triplexer, PCS/AWS/WCS-BRS, DC Sense

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

## Product Classification

**Product Type** Triplexer

## General Specifications

**Color** Gray

**Common Port Label** Common

**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** 147 mm | 5.787 in

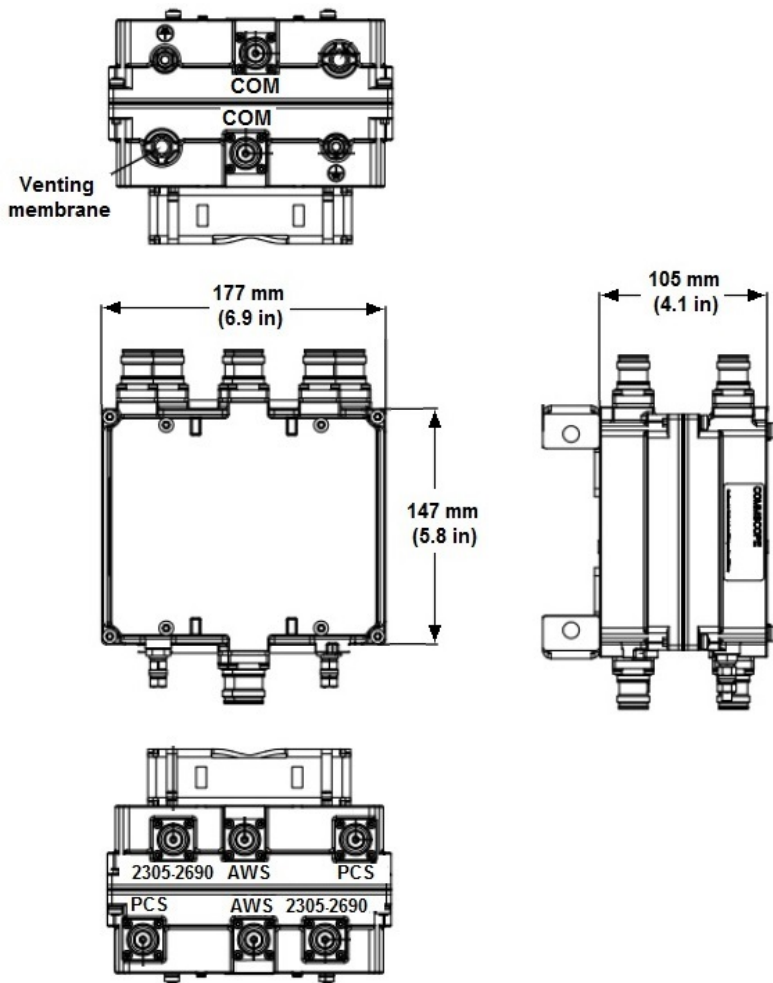
**Width** 177 mm | 6.969 in

**Depth** 105 mm | 4.134 in

**Ground Screw Diameter** 6 mm | 0.236 in

**Mounting Pipe Diameter Range** 40–160 mm

## Outline Drawing



## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>License Band, Band Pass</b>	AWS 1700   PCS 1900   TDD 1900   TDD 2000   WCS 2300

## Electrical Specifications, dc Power/Alarm

<b>dc/AISG Pass-through Method</b>	Auto sensing
<b>dc/AISG Pass-through Path</b>	See logic table
<b>Lightning Surge Current</b>	10 kA
<b>Lightning Surge Current Waveform</b>	8/20 waveform
<b>Operating Current at Voltage</b>	10 mA @ 12 Vdc
<b>Voltage</b>	7–30 Vdc

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## Electrical Specifications, AISG

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

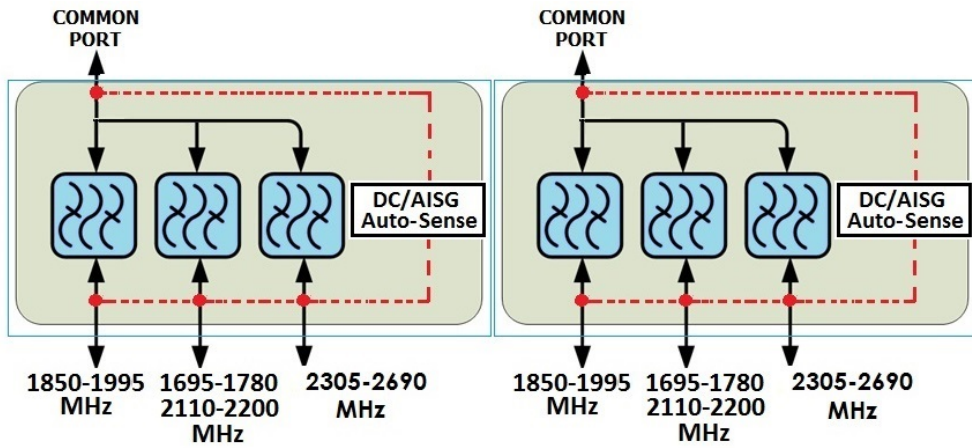
## Electrical Specifications

<b>Sub-module</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>Branch</b>	1	2	3
<b>Port Designation</b>	1695-1780 & 2110-2200	1850-1995	2305-2690
<b>License Band</b>	AWS 1700, Band Pass	PCS 1900, Band Pass	WCS 2300, Band Pass

## Electrical Specifications, Band Pass

<b>Frequency Range, MHz</b>	<b>1695-1780 2110-2200</b>	<b>1850-1995</b>	<b>2305-2690</b>
<b>Insertion Loss, typical, dB</b>	0.3	0.3	0.3
<b>Total Group Delay, maximum, ns</b>	25	20	25
<b>Total Group Delay, typical, ns</b>	19	18	12
<b>Return Loss, typical, dB</b>	23	23	23
<b>Isolation, typical, dB</b>	53	53	53
<b>Input Power, RMS, maximum, W</b>	200	200	200
<b>Input Power, PEP, maximum, W</b>	2000	2000	2000
<b>3rd Order PIM, typical, dBc</b>	-161	-161	
<b>3rd Order PIM Test Method</b>	2 x 20 W CW tones	2 x 20 W CW tones	
<b>Higher Order PIM, typical, dBc</b>			-161
<b>Higher Order PIM Test Method</b>			2 x 20 W CW tones

## Block Diagram



## Logic Table

Combining Mode Operation (Ground Based)				
RF Ports DC Input Voltage				
Port 1 1850-1990 MHz	Port 2 1695-1780 MHz 2110-2200 MHz	Port 3 2305-2690 MHz	COMMON	DC/AISG Path Selection
<7	$7 \leq V \leq 30$	<7	<7	1695-1780 & 2110-2200 to COMMON "ON"
$7 \leq V \leq 30$	<7	<7	<7	1850-1990 to COMMON "ON"
<7	<7	$7 \leq V \leq 30$	<7	2305-2690 to COMMON "ON"
Any 2 or more ports active $7 \leq V \leq 30$			<7	Path selection will follow below priority: (1) 1695-1780 & 2110-2200 (2) 1850-1990 (3) 2305-2690

Splitting Mode Operation (Tower Top)				
RF Ports Impedance (Load Sensing)				
Port 1 1850-1990 MHz	Port 2 1695-1780 MHz 2110-2200 MHz	Port 3 2305-2690 MHz	COMMON	DC/AISG Path Selection
open/load	short	short	<7	1850-1990 to COMMON "ON"
short	open/load	short	<7	1695-1780 & 2110-2200 to COMMON "ON"
short	short	open/load	<7	2305-2690 to COMMON "ON"
Any 2 or more ports with open/load impedance			<7	DC/AISG will be routed to ALL ports with open/load impedance

## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	13.0 N @ 150 km/h (2.9 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	13.0 N @ 150 km/h (2.9 lbf @ 150 km/h)

## Environmental Specifications

<b>Operating Temperature</b>	-40 °C to +65 °C (-40 °F to +149 °F)
<b>Corrosion Test Method</b>	IEC 60068-2-11, 30 days
<b>Ingress Protection Test Method</b>	IEC 60529:2001, IP67

## Packaging and Weights

<b>Included</b>	Mounting hardware
<b>Volume</b>	2.7 L
<b>Weight, net</b>	4.2 kg   9.259 lb