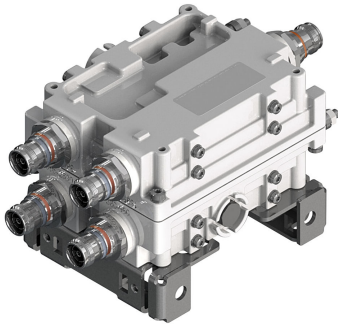


# CBC426T-DS-43 | E14F05P31



Twin Diplexer, 380–960 MHz/1695–2690 MHz,dc Sense,4.3-10

- BTS-to-feeder and feeder-to-antenna application
- New 4.3-10 connectors for improved PIM performance and size reduction
- Automatic dc switching with dc sense
- Convertible mounting brackets

## Product Classification

**Product Type** Diplexer

## General Specifications

**Product Family** CBC426

**Color** Gray

**Common Port Label** ANT

**Modularity** 2-Twin

**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** 152 mm | 5.984 in

**Width** 121 mm | 4.764 in

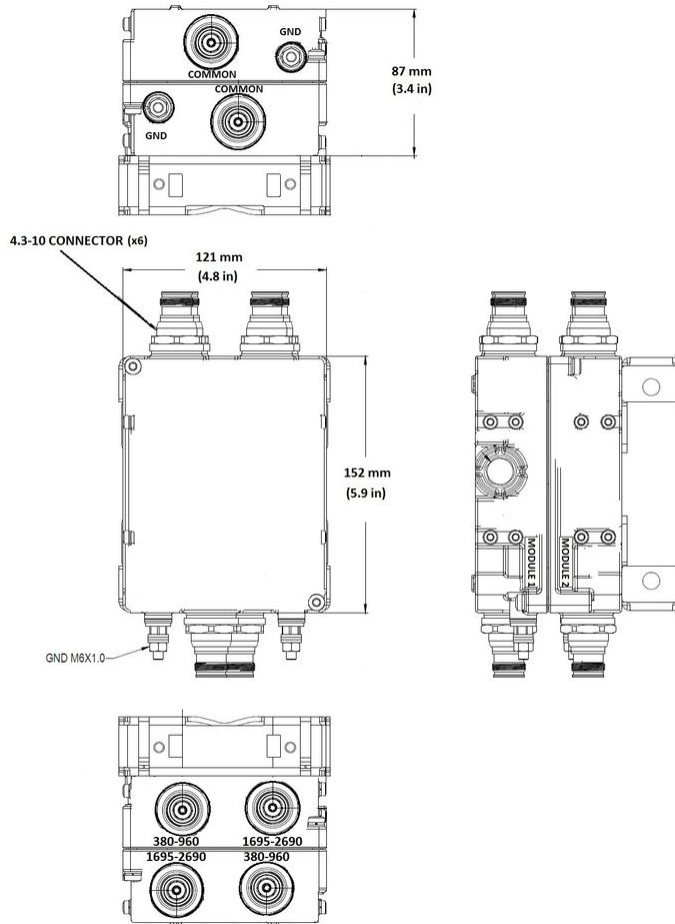
**Depth** 87 mm | 3.425 in

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

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

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## Outline Drawing



## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>License Band, Band Pass</b>	APT 700   AWS 1700   CEL 850   CEL 900   DCS 1800   EDD 800   IMT 2100   IMT 2600   LMR 750   LMR 800   LMR 900   PCS 1900   TDD 1900   TDD 2000   TDD 2300   TDD 2600   USA 700   USA 750

## Electrical Specifications, Common Port

<b>Composite Power, RMS</b>	250 W
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## Electrical Specifications, dc Power/Alarm

<b>dc/AISG Pass-through Method</b>	Auto sensing
<b>dc/AISG Pass-through Path</b>	See logic table

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<b>Lightning Surge Current</b>	10 kA
<b>Lightning Surge Current Waveform</b>	8/20 waveform
<b>Voltage</b>	7–30 Vdc

## 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

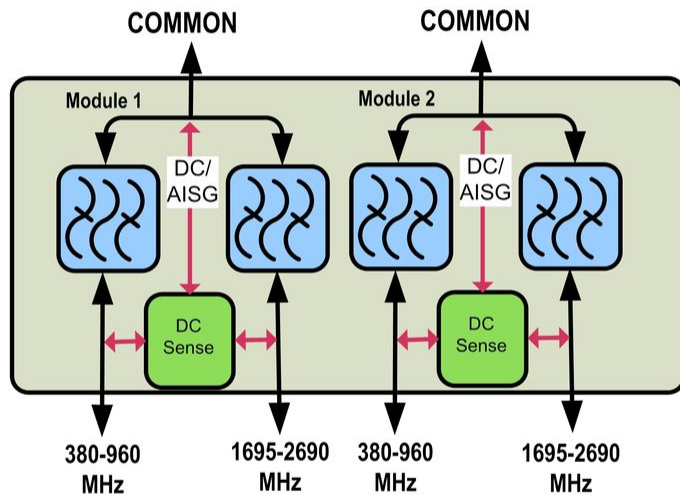
## Electrical Specifications

<b>Sub-module</b>	<b>1   2</b>	<b>1   2</b>
<b>Branch</b>	1	2
<b>Port Designation</b>	380-960	1695-2690
<b>License Band</b>	[4, 15, 16, 10, 11]	[2, 13, 17]

## Electrical Specifications, Band Pass

<b>Frequency Range, MHz</b>	<b>380–960</b>	<b>1695–2690</b>
<b>Insertion Loss, typical, dB</b>	0.1	0.1
<b>Total Group Delay, typical, ns</b>	2	4
<b>Return Loss, typical, dB</b>	24	22
<b>Isolation, typical, dB</b>	65	63
<b>Input Power, RMS, maximum, W</b>	200	200
<b>Input Power, PEP, maximum, W</b>	2000	2000
<b>3rd Order PIM, minimum, dBc</b>	-161	-161
<b>3rd Order PIM Test Method</b>	2 x 20 W CW tones	2 x 20 W CW tones

## Block Diagram



## Logic Table

Combining Mode Operation (Ground Based)			
RF Ports Input DC Voltage			
380 to 960 MHz	1695 to 2690 MHz	COMMON	DC/AISG Path Selection
$7 \leq V \leq 30$	$< 7$	$< 7$	380 to 960 MHz to COMMON "ON"
$< 7$	$7 \leq V \leq 30$	$< 7$	1695 to 2690 MHz to COMMON "ON"
$7 \leq V \leq 30$	$7 \leq V \leq 30$	$< 7$	1695 to 2690 MHz to COMMON "ON"

Splitting Mode Operation (Tower Top)			
RF Ports Impedance DC (Load sensing)			
380 to 960 MHz	1695 to 2690 MHz	COMMON	DC/AISG Path Selection
open/load	short	$7 \leq V \leq 30$	COMMON to 380-960 "ON"
short	open/load	$7 \leq V \leq 30$	COMMON to 1695-2690 "ON"
open/load	open/load	$7 \leq V \leq 30$	ALL ports ON
short	short	$7 \leq V \leq 30$	ALL ports OFF

## Environmental Specifications

<b>Operating Temperature</b>	-40 °C to +65 °C (-40 °F to +149 °F)
<b>Relative Humidity</b>	5%–100%
<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>Mounting Hardware Weight</b>	0.6 kg   1.323 lb
<b>Volume</b>	1.6 L

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**Weight, without mounting hardware**      2.7 kg | 5.952 lb