

# CBC1921Y-DS-6X | E15S07P40



Diplexer Suitcase 6pk PCS/AWS 1-4, DC Sense

This product will be discontinued on: March 30, 2024

Replaced By:

CBC1923T-DS-43      Twin Diplexer PCS/AWS+WCS, dc Sense, 4.3-10  
E14F05P33

## Product Classification

**Product Type**      Diplexer

## General Specifications

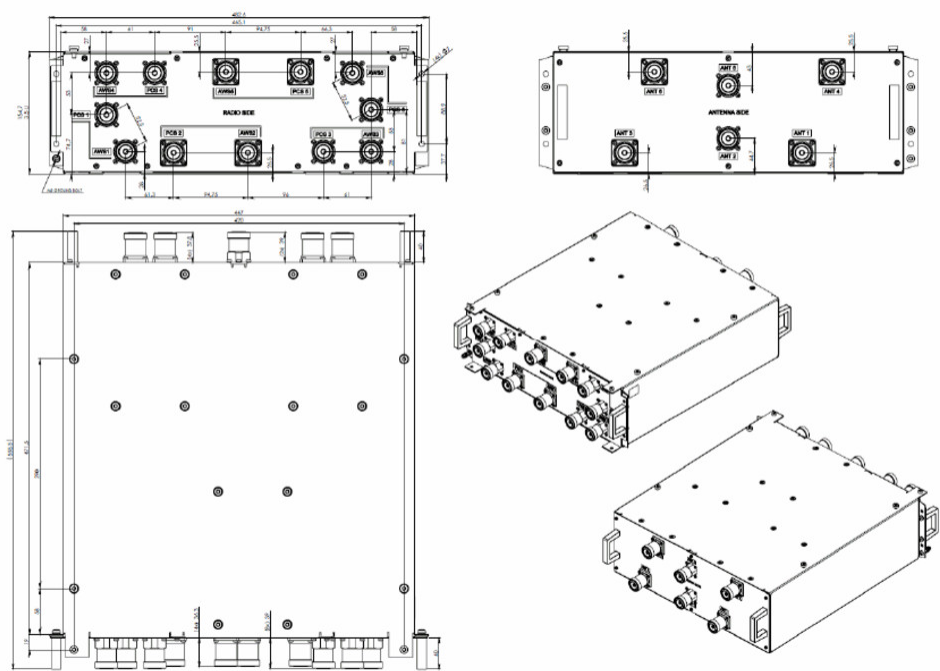
**Product Family**      CBC1921Y  
**Common Port Label**      COM  
**RF Connector Interface**      7-16 DIN Female  
**RF Connector Interface Body Style**      Long neck

## Dimensions

**Height**      482.6 mm | 19 in  
**Width**      154.7 mm | 6.091 in  
**Depth**      555.5 mm | 21.87 in

## Outline Drawing

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## Electrical Specifications

Impedance	50 ohm
License Band, Band Pass	AWS 1700   PCS 1900

## Electrical Specifications, dc Power/Alarm

dc/AISG Pass-through, combiner	dc Sensing
dc/AISG Pass-through, demultiplexer	Branch 1   Branch 2

## Electrical Specifications

Sub-module	1   2   3   4   5   6	1   2   3   4   5   6
Branch	1	2
Port Designation	AWS	PCS
License Band	AWS 1700, Band Pass	PCS 1900, Band Pass

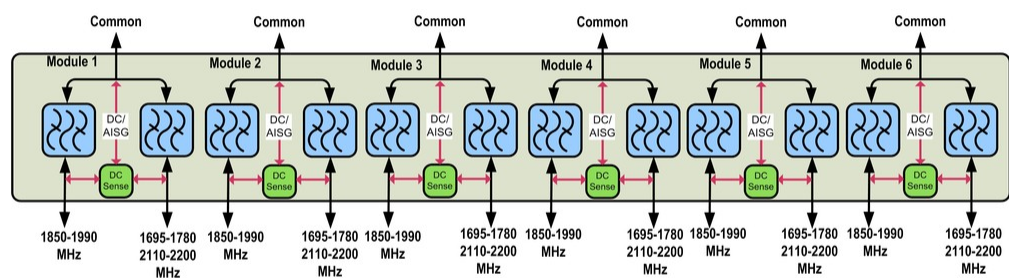
## Electrical Specifications, Band Pass

Frequency Range, MHz	1695–1780 2110–2200	1850–1990
Insertion Loss, maximum, dB	0.5	0.5
Insertion Loss, typical, dB	0.4	0.4

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Total Group Delay, maximum, ns	25	25
Return Loss, minimum, dB	19	19
Return Loss, typical, dB	22	22
Isolation, minimum, dB	50	50
Isolation, typical, dB	53	53
Input Power, RMS, maximum, W	200	200
Input Power, PEP, maximum, W	3000	3000
3rd Order PIM, typical, dBc	-155	-155
3rd Order PIM Test Method	1 x 20 W AWS CW tone 1 x 20 W PCS CW tone	2 x 20 W CW tones

Block Diagram



Logic Table

Combining Mode Operation (Ground Based)			
RF Ports Input Voltage			
1850-1990MHz	1695-1780 MHz 2110-2200 MHz	COMMON	DC/AISG Path Selection
$7 \leq V \leq 30$	$<7$	$<7$	1850-1990 MHz to COMMON "ON" 1695-1780/2110-2200 MHz "OFF"
$<7$	$7 \leq V \leq 30$	$<7$	1850-1990 MHz to COMMON "OFF" 1695-1780/2110-2200 MHz to COMMON "ON"
$V < 7$ or $V > 30$	$V < 7$ or $V > 30$	$V < 7$ or $V > 30$	ALL ports OFF

Splitting Mode Operation (Tower Top)			
RF Ports Input Voltage			
1850-1990MHz	1695-1780 MHz 2110-2200 MHz	COMMON	DC/AISG Path Selection
$<7$	$<7$	$7 \leq V \leq 30$	ALL PORTS ON*
$7 \leq V \leq 30$	$<7$	$7 \leq V \leq 30$	ALL ports OFF (Verified at Start Up)
$<7$	$7 \leq V \leq 30$	$7 \leq V \leq 30$	ALL ports OFF (Verified at Start Up)
$<7$	$<7$	$7 \leq V \leq 30$	ALL ports OFF (Verified at Start Up)

\* DC/AISG will pass to both Band RF Ports, External DC blocks required for proper installation

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

Packaging and Weights

Weight, net	30 kg   66.139 lb
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