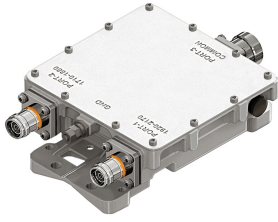# E11F05P38-V

Diplexer, DCS 1800/UMTS 2100, AISG compatible, dc pass on all ports with hybrid connectors 4.3-10 input and 7/16 output

- Industry leading PIM performance
- dc/AISG pass-through on all frequency ports
- Hybrid connectors 4.3-10 input and 7/16 output
- Isolation >60dB in 1710-1730/1805-1825 band
- Isolation >60dB in 1965-1980/2155-2170 band

This product will be discontinued on: December 30, 2024
Replaced By:

E12F05P96 — Diplexer, DCS 1800/UMTS 2100, AISG compatible, dc pass on all ports with 4.3-10 connectors

Product Classification

Product Type	Diplexer

General Specifications

Product Family	CBC1821
Color	Gray
Common Port Label	PORT 3 COMMON
Modularity	1-Single
Mounting	Pole | Wall
Mounting Pipe Hardware	Band clamps (2)
RF Connector Interface	4.3-10 Female | 7-16 DIN Female
RF Connector Interface Body Style	Long neck

Dimensions

Height	149 mm | 5.866 in
Width	214 mm | 8.425 in
Depth	147 mm | 5.787 in
RF Connector Length	25 mm | 0.984 in
Ground Screw Diameter	5 mm | 0.197 in
Mounting Pipe Diameter Range	40–160 mm

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Outline Drawing
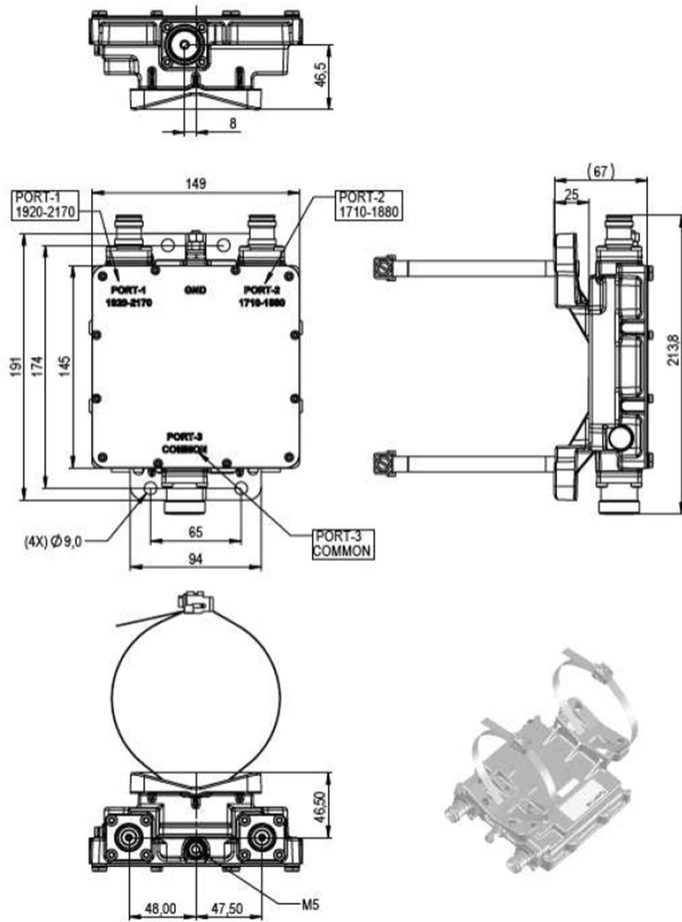
Electrical Specifications

Insertion Loss Ripple, maximum	0.2 dB
Electrical Safety Standard	EN 60950
Electromagnetic Compatibility/Interference (EMC/EMI)	EN 55022	ETSI 301 489-1 V1.8.1
Impedance	50 ohm
License Band, Band Pass	DCS 1800	IMT 2100

Electrical Specifications, dc Power/Alarm

dc/AISG Pass-through Method	Factory set
dc/AISG Pass-through Path	Branch 1	Branch 2

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dc/AISG Pass-through, combiner	Branch 1	Branch 2
dc/AISG Pass-through, demultiplexer	Branch 1	Branch 2
Lightning Surge Current	10 kA	
Lightning Surge Current Waveform	8/20 waveform	

Electrical Specifications, AISG

AISG Pass-through Current, maximum	2 A

Electrical Specifications

Sub-module	1	1
Branch	1	2
Port Designation	PORT 1 1710-1880	PORT 2 1920-2170
License Band	DCS 1800, Band Pass	IMT 2100, Band Pass

Electrical Specifications, Band Pass

Frequency Range, MHz	1710−1880	1920−2170
Insertion Loss, maximum, dB	0.4	0.4
Insertion Loss, typical, dB	0.15	0.15
Return Loss, minimum, dB	18	18
Return Loss, typical, dB	20	20
Isolation, minimum, dB	50	50
Isolation, typical, dB	54	54
Input Power, RMS, maximum, W	250	250
Input Power, PEP, maximum, W	2500	2500
3rd Order PIM, typical, dBc	-160	
3rd Order PIM Test Method	Two +43 dBm carriers	
7th Order PIM, typical, dBc		-160
7th Order PIM Test Method		Two +43 dBm carriers

Block Diagram

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COMMON

1710-1880MHz   **1920-2170MHz**
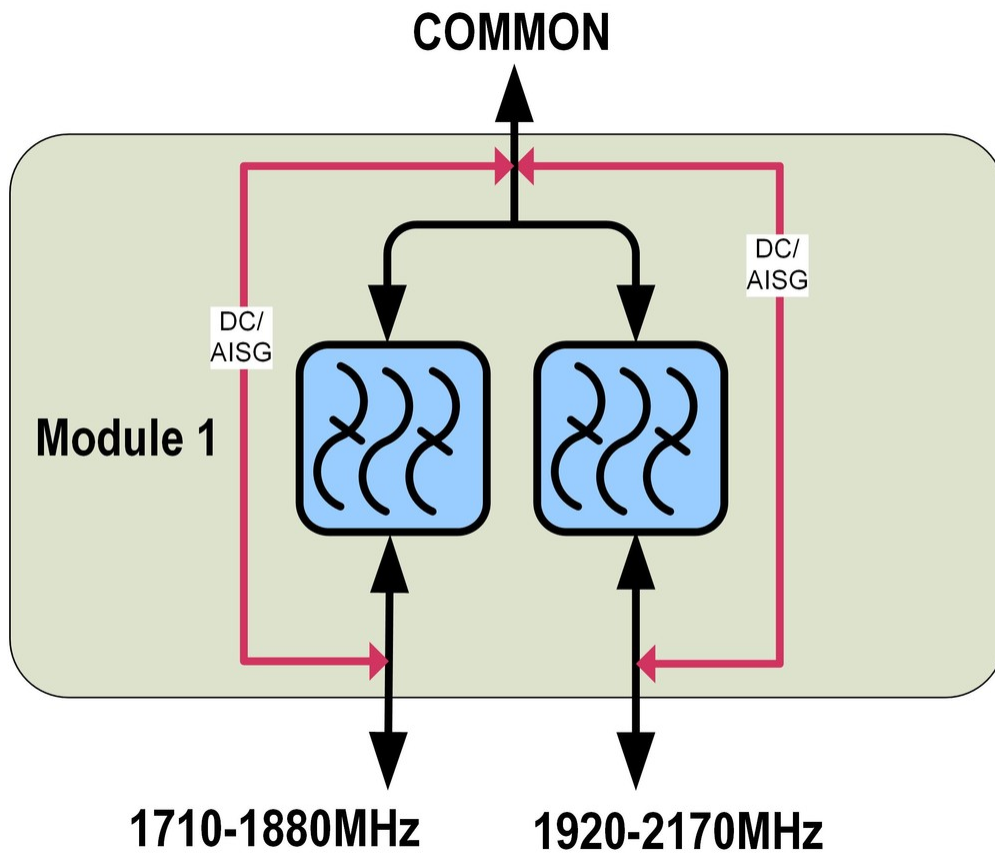
Material Specifications

Finish   Painted

Mechanical Specifications

Mechanical Shock Test Method   IEC 60068-2-27

Wind Speed, maximum   200 km/h (124 mph)

Environmental Specifications

Operating Temperature   -40 °C to +60 °C (-40 °F to +140 °F)

Corrosion Test Method   IEC 60068-2-11, 30 days

Environmental Test Method   ETSI EN 300 019-1-4

Ingress Protection Test Method   IEC 60529:2001, IP67

Mean Time Between Failures, minimum   1000000 h

Thermal Shock Test Method   IEC 60068-2-14

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UV Resistance Test Method	IEC 60068-2-5
Vibration Test Method	IEC 60068-2-6

Packaging and Weights

Included	Mounting hardware
Volume	0.9 L
Weight, net	2 kg | 4.409 lb
Weight, without mounting hardware	1.9 kg | 4.189 lb

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

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