

Andrew® Solutions

Diplexer 698-894/1710-2360 MHz

Multiband Combiner Combines Low and High Frequency Ranges

The CDX723A Diplexer is a multiband combiner designed to combine wireless systems operating in the 698-894 MHz bands and systems operating in the 1710-2360 MHz bands onto a common feeder cable. The product family is designed for indoor/outdoor installation and can support a variety of mounting scenarios.

In addition to low insertion loss, high isolation, and high power capability, the CDX723A Diplexer includes the following features:

DC/AISG bypass with auto-sense – detects the presence of PDU or RET controller on either BTS port or AISG port and provides a bypass path to the COMMON port;

DC redundancy – with DC present on more than one port, the diplexer applies priority rules to select the bypass path and draw dummy current from the backup supply;

Convertible mounting brackets and stacking feature – support a large variety of mounting methods as well as multiple unit stacking using only included hardware;

Layer One Converter (optional) – modem connects RS-485 signals to/from AISG controller with 2.176 MHz OOK interface on COMMON port. A version with female AISG port for tower top use connects instead to devices such as RET antennas.

- Internal lightning protection on all ports
- Overcurrent/overvoltage protection with automatic recovery
- External grounding stud
- Available in single and twin configuration

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Electrical

LOW FREQUENCY PATH

Frequency range, MHz	698–894
Insertion loss, dB	0.15 max
Total group delay, ns	10 max
Isolation @ high frequency band, dB	60 min
Return loss, dB	22 min, 25 typ
Maximum input power – RMS, W	500
Maximum input power – PEP, W	5000
Passive IM products (2X43dBm), dBc	153 min

HIGH FREQUENCY PATH

Frequency range, MHz	1710–2360
Insertion loss, dB	0.15 max
Total group delay, ns	10 max
Isolation @ low frequency band, dB	60 min
Return loss, dB	22 min, 25 typ
Maximum input power – RMS, W	500
Maximum input power – PEP, W	5000
Passive IM products (2x43 dBm), dBc	153 min

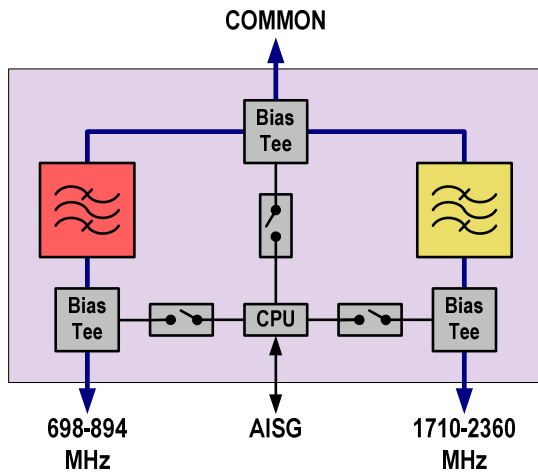
AISG

Protocol..... AISG 1.1 & 2.0

Environmental

Operating temperature range, °C	-40 to +65
Wind load @ 115 km/h (70 mph), N (lbf)	27 (6.1)
Ingress protection	IP67
Lightning protection	10 kA, 8/20 µs

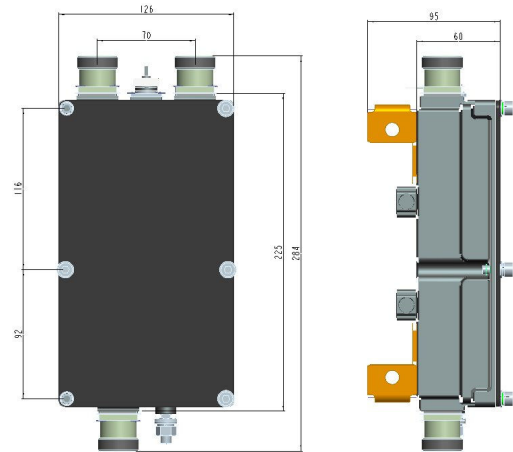
Block Diagram – CDX723A-DS-B



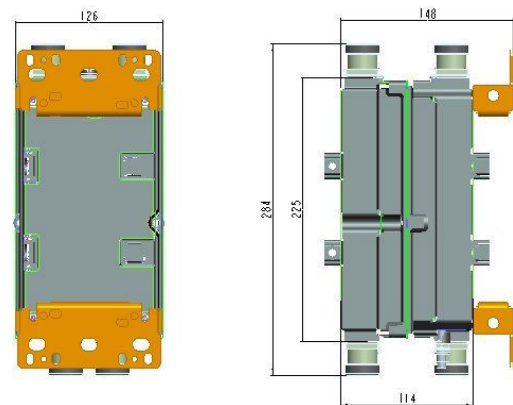
Mechanical

Dimensions – single, mm	225 × 125 × 60 (8.9 × 5.0 × 2.4)
Dimensions – twin, mm	225 × 125 × 115 (8.9 × 5.0 × 4.5)
Weight – single, kg (lb)	2.8 (6.2)
Weight – twin, kg (lb)	4.6 (10.1)
Finish	Gray paint
Connectors, RF	7-16 DIN female
Connector, AISG	IEC 60130-9
Ground terminal diameter, mm (in)	8 (0.31)

Outline – Single



Outline – Twin



Ordering Information: SPECIFY MODEL NUMBER TO ORDER DIPLEXER WITH OPTIONS AS SHOWN

Model Number	Part Number	Description
CDX723A-DS	E15V95P41	Diplexer, Auto-Sense
CDX723A-DS-B	E15V95P44	Diplexer, Auto-Sense, LOC
CDX723A-DS-T	E15V95P45	Diplexer, Auto-Sense, LOC
CDX723AT-DS	E15V95P46	Twin Diplexer, Auto-Sense
CDX723AT-DS-B	E15V95P49	Twin Diplexer, Auto-Sense, LOC
CDX723AT-DS-T	E15V95P50	Twin Diplexer, Auto-Sense, LOC

AISG Port	Application
	BTS to Feeder
Male	BTS to Feeder
Female	Feeder to Antenna
	BTS to Feeder
Male	BTS to Feeder
Female	Feeder to Antenna



www.commscope.com

CDX723A rev. 2 (08/21/2013). Visit our Web site or contact your local CommScope representative for more information

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