

DBCT155F1V13-1

DIPLEXER 1800-2600/3500

The Kaelus DBCT155 is a bi-directional diplexer designed to combine 1800-2100-2300-2600 and 3500 technologies. The DBCT155 provides low insertion loss and excellent passive intermodulation performance. The DBCT155 can be used at either the BTS or antenna end of the feeder.

FEATURES

- Enables antenna/feeder sharing for 1800-2100-2300-2600 and 3500 networks
- Low insertion loss & high return loss
- Low passive IM performance
- Multiple DC/AISG bypass configurations available with built-in lightning protection
- Twin (2x2 MIMO) and quad (4x4 MIMO) models available



TECHNICAL SPECIFICATIONS

PORT NAME	1800-2600	3500
Passband	1710 - 2690MHz	3400 - 3800MHz
Insertion loss	0.15dB typical, 0.2dB maximum	
Return loss	18dB minimum	
Maximum input power	200W (average)	200W (average)
Intermodulation products	-160 dBc maximum with 2 x +43dBm TX Carrier	
Isolation in 1800-2600 band	N/A	50dB minimum
Isolation in 3500 band	50dB minimum	N/A

ELECTRICAL

Impedance	50Ohms
-----------	--------

DC / AISG

DC/AISG path is factory configurable, see ordering information

Passband	0 – 3MHz
Insertion loss	1dB maximum
Return loss	12dB minimum
Input voltage range	± 30V
DC current rating	3A continuous
Compliance	3GPP TS 25.461

ENVIRONMENTAL

For further details of environmental compliance, please contact Kaelus.

Temperature range	-40°C to +65°C -40°F to +149°F
Ingress protection	IP67
Lightning protection	RF: ±5kA maximum (8/20us)
MTBF	>1,000,000 hours
Compliance	ETS 300 019-1-4 Class 4.1E

MECHANICAL	
Dimensions H x D x W (twin unit)	142 x 54 x 172.3 mm 5.6 x 2.1 x 6.8 in
Dimensions H x D x W (quad unit)	142 x 100 x 172.3 mm 5.6 x 3.9 x 6.8 in
Weight	1.8kg / 4lbs (Twin) 3.6kg / 7.9lbs (Quad)
Finish	NCS 1502-R (light grey)
Connectors	4.3-10 (F) x 6 long neck (Twin) 4.3-10 (F) x 12 long neck (Quad)
Mounting	Pole/wall bracket supplied with two metal clamps for 40-140 mm diameter poles

ORDERING INFORMATION

PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS	DC/AISG CONFIGURATION
DBC0155F1V10-1	2 in / 4 out	FIXED DC FACTORY CONFIGURABLE	4.3-10 (F)	NO DC
DBCT155F1V10-1	4 in / 8 out	FIXED DC FACTORY CONFIGURABLE	4.3-10 (F)	NO DC
DBC0155F1V11-1	2 in / 4 out	FIXED DC FACTORY CONFIGURABLE	4.3-10 (F)	DC TO 3500
DBCT155F1V11-1	4 in / 8 out	FIXED DC FACTORY CONFIGURABLE	4.3-10 (F)	DC TO 3500
DBC0155F1V12-1	2 in / 4 out	FIXED DC FACTORY CONFIGURABLE	4.3-10 (F)	DC TO 1800-2600
DBCT155F1V12-1	4 in / 8 out	FIXED DC FACTORY CONFIGURABLE	4.3-10 (F)	DC TO 1800-2600
DBC0155F1V13-1	2 in / 4 out	FIXED DC FACTORY CONFIGURABLE	4.3-10 (F)	DC TO ALL PATH
DBCT155F1V13-1	4 in / 8 out	FIXED DC FACTORY CONFIGURABLE	4.3-10 (F)	DC TO ALL PATH
Note: DC autosense versions available, contact Kaelus for information				

ELECTRICAL BLOCK DIAGRAM

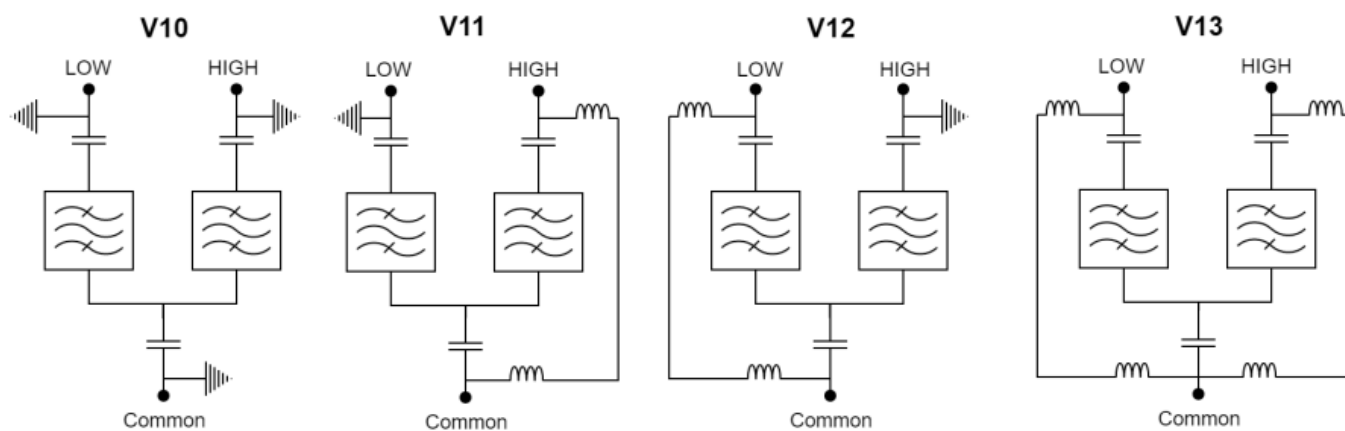
DBC0155F1VXX-Z and DBCT155F1VXX-Z where

XX denotes the DC path variant

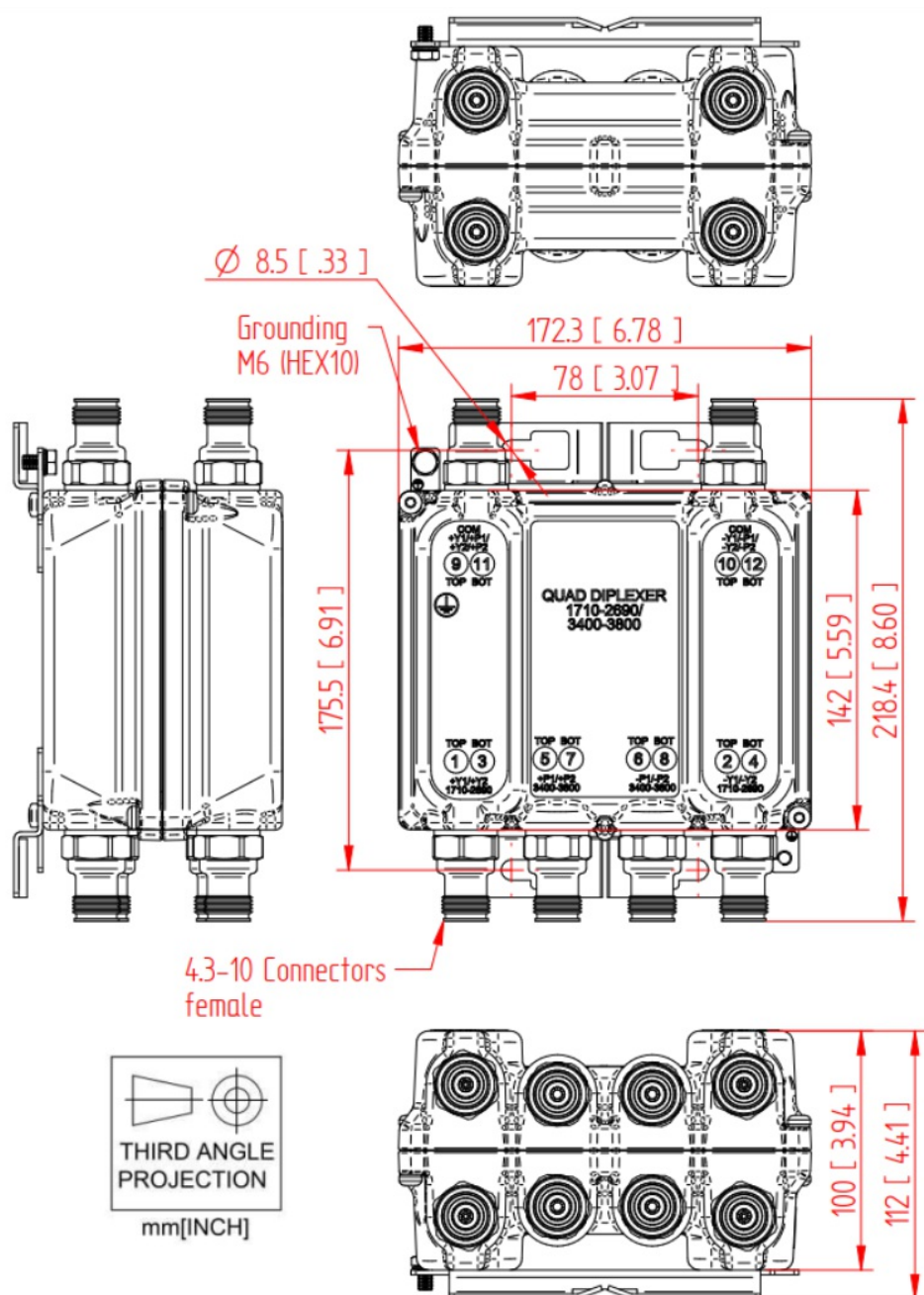
Z denotes the mounting : "-1" = single mount and "-2" = dual mount

LOW port is 1800-2600 band

HIGH port is 3500 band



MECHANICAL BLOCK DIAGRAM



DBCT155F1VXX-1
SINGLE MOUNT