

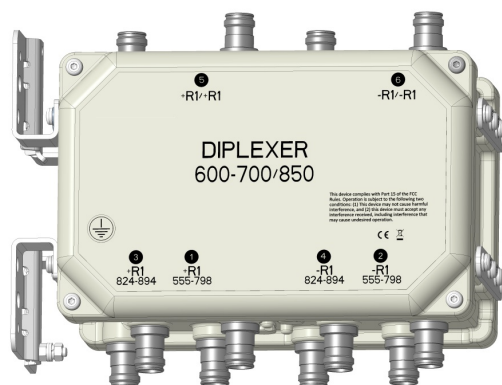
DBCT108F1V11-2

DIPLEXER 600-700/850

The Kaelus DBCT108 is a bi-directional Diplexer designed to combine 600-700 with 850 technologies, the DBCT108 provides excellent insertion loss and passive intermodulation performance. Bidirectional passage of DC/AISG is provided in this outdoor product.

FEATURES

- Enables antenna/feeder sharing for 600-700 and 850 networks
- Designed and 100% tested for low passive intermodulation
- Low insertion losses
- Good return loss



TECHNICAL SPECIFICATIONS

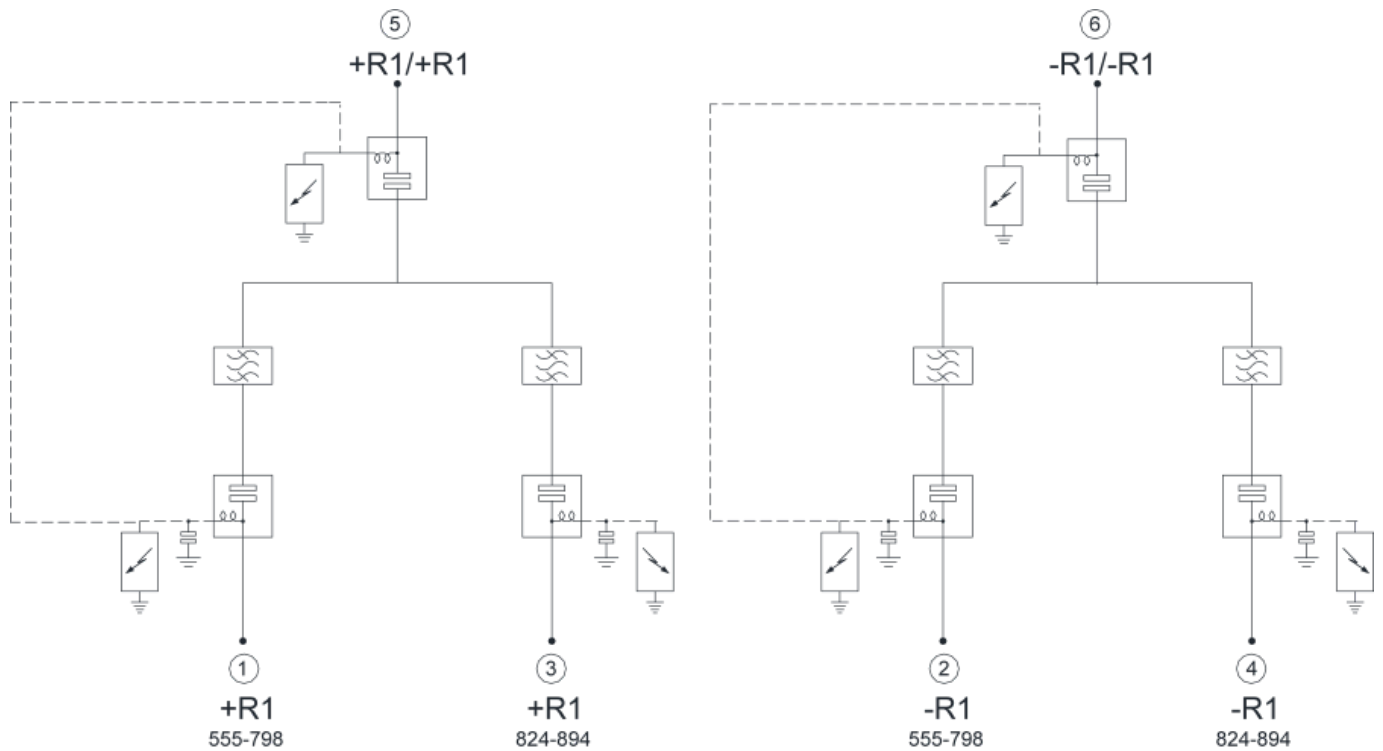
PORT NAME	600-700	850
Passband	555 - 798MHz	824 - 894MHz
Insertion loss	0.15dB typical	0.2dB typical
Return loss	23dB typical	
EVM	≤0.5% across any 10MHz	≤0.5% across any 20MHz
Group delay variation	7.5ns typical over any 10MHz	10ns typical over any 20MHz
Absolute group delay	7.5ns typical	17.5ns typical
Maximum input power	120W (average) / 1200W (PEP)	120W (average) / 1200W (PEP)
Phase linearity over any 10MHz	2° typical, 10 °maximum	
ELECTRICAL		
Impedance	50Ohms	
Intermodulation products	-156dBc all ports with 2 x 20W carriers	
Isolation	50dB typical	
DC / AISG		
DC/AISG pass on 700		
Passband	0 - 3MHz	
Insertion loss	1dB maximum	
Return loss	12dB minimum	
Input voltage range	± 31V	
DC current rating	2A continuous, 4A peak	
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	
Altitude	3000m/10,000ft maximum	
Lightning protection	RF: ±5kA maximum (8/20us), IEC61312-1	
MTBF	>1,000,000 hours	

MECHANICAL	
Dimensions H x D x W (single twin unit)	172 x 267 x 89 mm 6.77 x 10.51 x 3.50 in maximum
Dimensions H x D x W (dual twin unit)	172 x 267 x 183 mm 6.77 x 10.51 x 7.20 in maximum
Weight	5.5kg / 12lbs (single twin) 10.9kg / 24lbs (dual twin)
Finish	Painted, light grey (RAL7035)
Connectors	4.3-10 (F) x 6 long neck (single twin) 4.3-10 (F) x 12 long neck (dual twin)
Wind Load	Front 55N, Side 304N (single twin) Front 140N, Side 339N (dual twin) At 74m/s (AS/NZS 1170-2-2011 Structural design - Wind actions - Cyclone areas)
Mounting	Pole/wall bracket supplied with two metal clamps for 45-178 mm diameter poles

ORDERING INFORMATION

PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS	DC/AISG CONFIGURATION
DBCT108F1V10-1	TWIN, 2 in / 4 out	FIXED DC	4.3-10 (F)	NO DC
DBCT108F1V10-2	QUAD, 4 in / 8 out	FIXED DC	4.3-10 (F)	NO DC
DBCT108F1V11-1	TWIN, 2 in / 4 out	FIXED DC	4.3-10 (F)	DC ON 600-700
DBCT108F1V11-2	QUAD, 4 in / 8 out	FIXED DC	4.3-10 (F)	DC ON 600-700

ELECTRICAL BLOCK DIAGRAM



TWIN ELECTRICAL DIAGRAM

MECHANICAL BLOCK DIAGRAM

