

DBC0108F1V91-1

DIPLEXER 600-700/850, DC AUTOSENSE, SINGLE

The Kaelus DBC0108 is a bi-directional Diplexer designed to combine 600 & 700 with 850 technologies, the DBC0108 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
- Autosense of DC allows operation at the bottom or the top of the tower
- Very low insertion losses
- High Return Loss



TECHNICAL SPECIFICATIONS

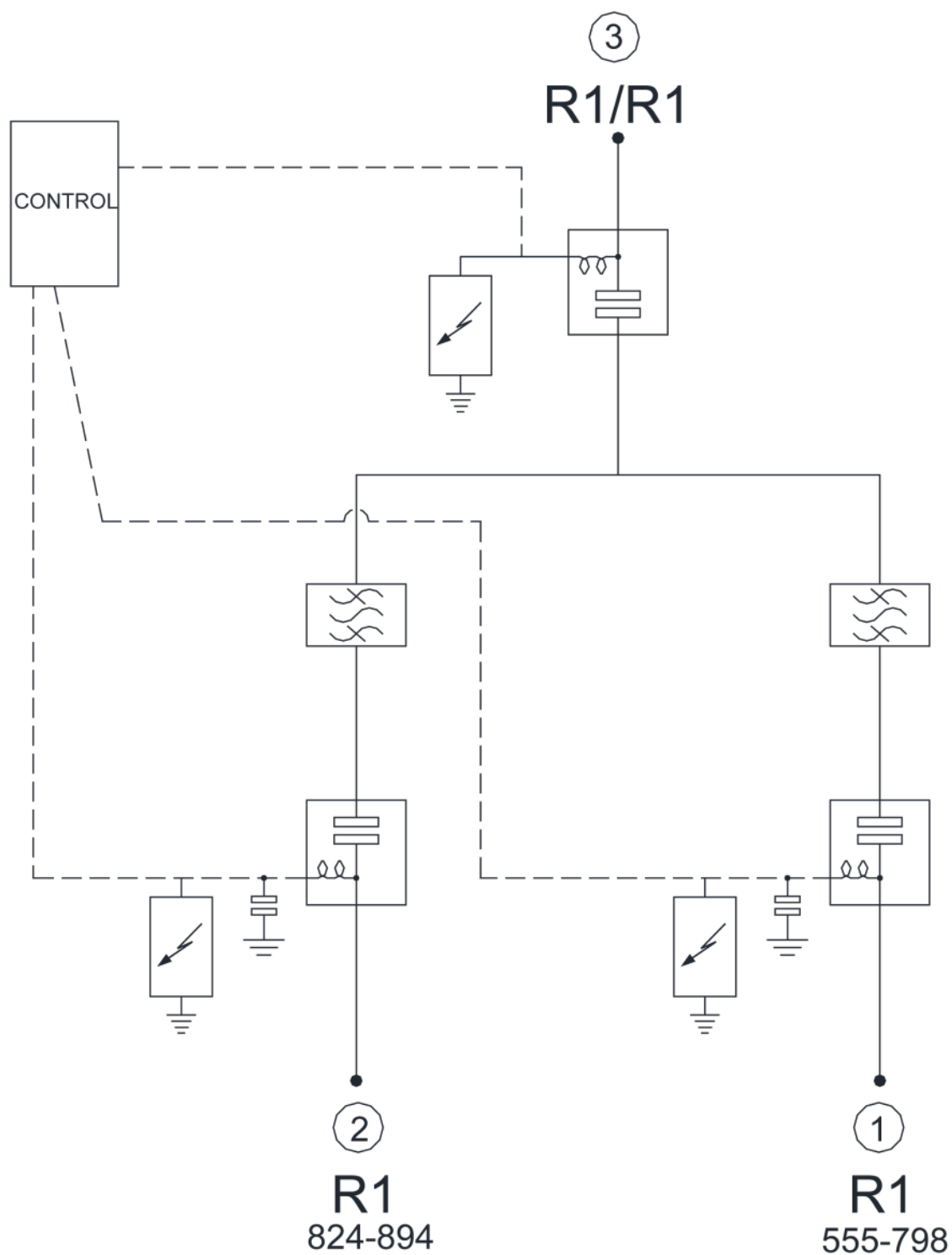
PORT NAME	600-700	850
Passband	555 - 798MHz	824 - 894MHz
Insertion loss	0.15dB typical	
Return loss	23dB typical	
EVM	≤0.5% across any 10MHz	≤0.5% across any 20MHz
Group delay variation	7.5ns typical over any 10MHz	10ns typical over any 20MHz
Absolute group delay	7.5ns typical	17.5ns typical
Maximum 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 maximum / -160dBc typical all ports with 2 x 20W carriers	
Isolation	50dB typical	
DC / AISG		
The DC/AISG path is automatically selected. In bottom of the tower applications (combiner mode), each RF channel port is sequentially checked for the presence of DC voltage. If more than one port has voltage, the port that has the highest (programmed) priority is passed to the common port. If a short circuit is detected on the common port DC/AISG is disabled. In top-of-tower applications (splitter mode), DC/AISG is passed to all ports that do not present a short circuit. If a short circuit is detected, the shorted RF port will be disabled for DC/AISG while other RF ports remain connected.		
Passband	2.076 -2.276MHz	
Input voltage range	7.5 - 30V DC	
DC current rating	2.5A continuous	
Port priority (combiner mode)	1st) 850, 2nd) 600-700	
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	
Compliance	FCC part 15 subpart B	

MECHANICAL	
Dimensions H x D x W (single unit)	172 x 145 x 89 mm 6.8 x 5.7 x 3.52 in
Weight (single unit)	2.9kg / 6.4lbs
Finish	Painted, light grey (RAL7035)
Wind Load	Front 198N, Side 75N (single) At 74m/s (AS/NZS 1170-2-2011 Structural design - Wind actions - Cyclone areas)
Connectors (single unit)	4.3-10 (F) x 3 long neck
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
DBC0108F1V91-1	SINGLE 1 in / 2 out	DC AUTSENSING WITHOUT LED	4.3-10 (F)	PRIORITY 850/600-700
DBCT108F1V91-1	TWIN 2 in / 4 out	DC AUTSENSING WITHOUT LED	4.3-10 (F)	PRIORITY 850/600-700
DBCT108F1V91-2	QUAD 4 in / 8 out	DC AUTSENSING WITHOUT LED	4.3-10 (F)	PRIORITY 850/600-700

ELECTRICAL BLOCK DIAGRAM



MECHANICAL BLOCK DIAGRAM

