

DBC0115F1V91-1

DIPLEXER 555-960/1695-2690

Kaelus world proven outdoor solutions provide strong RF performance coupled with rugged features. The DBC0115 dual band combiner combines the 555-960 MHz and 1695-2690 MHz frequency bands. The DBC0115 can be used at either the BTS or antenna end of the feeder. Single and twin units are available.

FEATURES

- Designed for multi-band, co-located sites
- Multiple DC/AISG bypass configurations available with built-in lightning protection
- Single and twin configurations available
- Suitable for outdoor and indoor applications
- UMTS & LTE ready
- Wall or mast mounting



TECHNICAL SPECIFICATIONS

BAND NAME	555 - 960	1695 - 2690
Passband	555 - 960MHz	1695 - 2690MHz
Insertion loss	0.1dB typical (0.2dB maximum)	0.1dB typical (0.2dB maximum)
Return loss	> 20dB	> 20dB
Maximum input power	250W (average) / 2kW (PEP)	250W (average) / 2kW (PEP)
Intermodulation products	< -160dBc at 2 x 43dBm TX Carrier	
Rejection high band	50dB min	N/A
Rejection low band	N/A	50dB min

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. To reduce current consumption at low supply voltage, LEDs are sequentially enabled.

Passband	0 - 3MHz
Insertion loss	1dB maximum
Return loss	12dB minimum
Input voltage range	8 - 31V DC
DC current rating	2A continuous
Compliance	3GPP, TS 25.461
Port priority (combiner mode)	Refer Ordering Information

ENVIRONMENTAL

For further details of environmental compliance, please contact Kaelus.

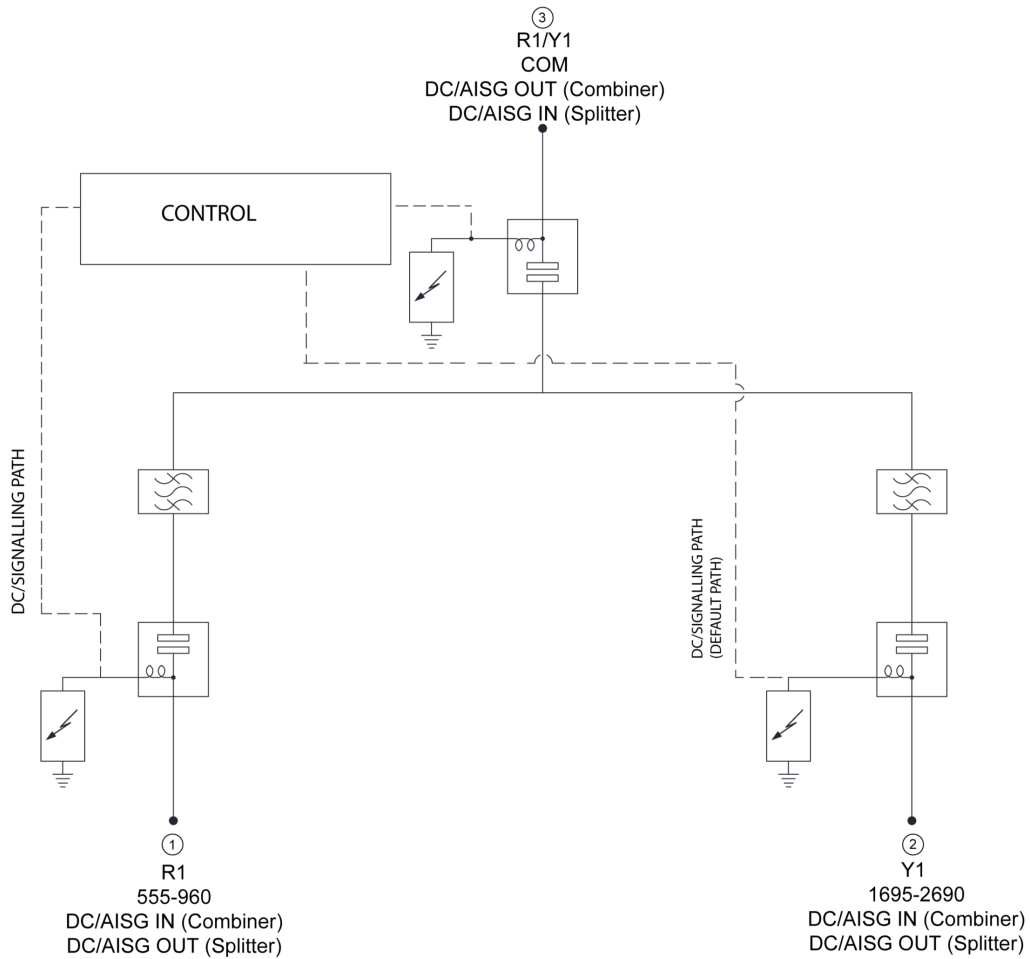
Temperature range	-40°C to +65°C -40°F to +149°F
Ingress protection	IP67
Lightning protection	5kA maximum (8/20us)
MTBF	> 1,000,000 Hours
Compliance	ETS 300 019 1-4 (OPERATIONAL) ETS 300 019 1-1 (STORAGE)

MECHANICAL	
Dimensions H x D x W (single unit)	108 x 142 x 66mm 4.25 x 5.59 x 2.60in
Dimensions H x D x W (twin unit)	108 x 142 x 134mm 4.25 x 5.59 x 5.28in
Weight	1.6kg 3.53lbs (single) 3.2kg 7.06lbs
Finish	Painted, NCS 1502-R
Connectors	RF: 4.3-10 (F) x 3 long neck (single) 4.3-10 (F) x 6 long neck (twin)
Wind Load	Front 116N, Side 32N (Single) Front 87N, Side 96N (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
DBC0115F1V91-1	SINGLE 1 in / 2 out	DC AUTOSENSING WITHOUT LED	4.3-10 (F)	PRIORITY 1695 - 2690/555 - 960
DBC0115F1V91-2	TWIN 2 in / 4 out	DC AUTOSENSING WITHOUT LED	4.3-10 (F)	PRIORITY 1695 - 2690/555 - 960
DBC0115F1V92-1	SINGLE 1 in / 2 out	DC AUTOSENSING WITHOUT LED	4.3-10 (F)	PRIORITY 555 - 960/1695 - 2690
DBC0115F1V92-2	TWIN 2 in / 4 out	DC AUTOSENSING WITHOUT LED	4.3-10 (F)	PRIORITY 555 - 960/1695 - 2690

ELECTRICAL BLOCK DIAGRAM



DC-AUTOSENSE BLOCK DIAGRAM

MECHANICAL BLOCK DIAGRAM

