DBC0042F2V51-2

DIPLEXER 698-960/1695-2200

The Kaelus DBC0042F2V51-x dual band combiner combines the 698-960MHz and 1695-2200MHz frequency bands. The combiner is used so as to minimize infrastructure capital expenditure and to improve network reliability.



FEATURES

- Suitable for UMTS and LTE systems
- Field settable DC/AISG with built-in lightning protection
- Suitable for BTS or antenna end of the feeder
- AWS3 and AWS4 ready
- Single or dual units available for indoor or outdoor use

TECHNICAL SPECIFICATIONS

BAND NAME	698 - 960	1695 - 2200
Passband	698 - 960MHz	1695 - 2200MHz
Insertion loss	0.2dB maximum / 0.11dB typical	0.2dB maximum / 0.12dB typical
Return loss	24dB typical / 20.8dB minimum	
Group delay variation	0.1ns maximum over any 180kHz	
Phase linearity	1° maximum over any 180kHz	
Isolation: 698-960MHz	70dB typical, 50dB minimum	
Isolation: 1695-2200MHz	70dB typical, 50dB minimum	

ELECTRICAL	
Impedance	50Ohms
Intermodulation products	-161dBc typical / -155dBc maximum all ports with 2 x 20W carriers
Maximum input power	500W (average) / 5kW (PEP)

DC / AISG	
A field selectable DC/AISG path is achieved via mechanical links on a IEC60130-9, 8-pin female connector (see mechanical diagram).	
Passband	0 - 3MHz
Insertion loss, single DC/AISG pass	1dB maximum
Return loss, single DC/AISG pass	12dB minimum
Insertion loss, two DC/AISG pass	4.5dB typical
Return loss, two DC/AISG pass	9dB typical
Input voltage range	± 31V
DC current rating	2A continuous, 4A peak

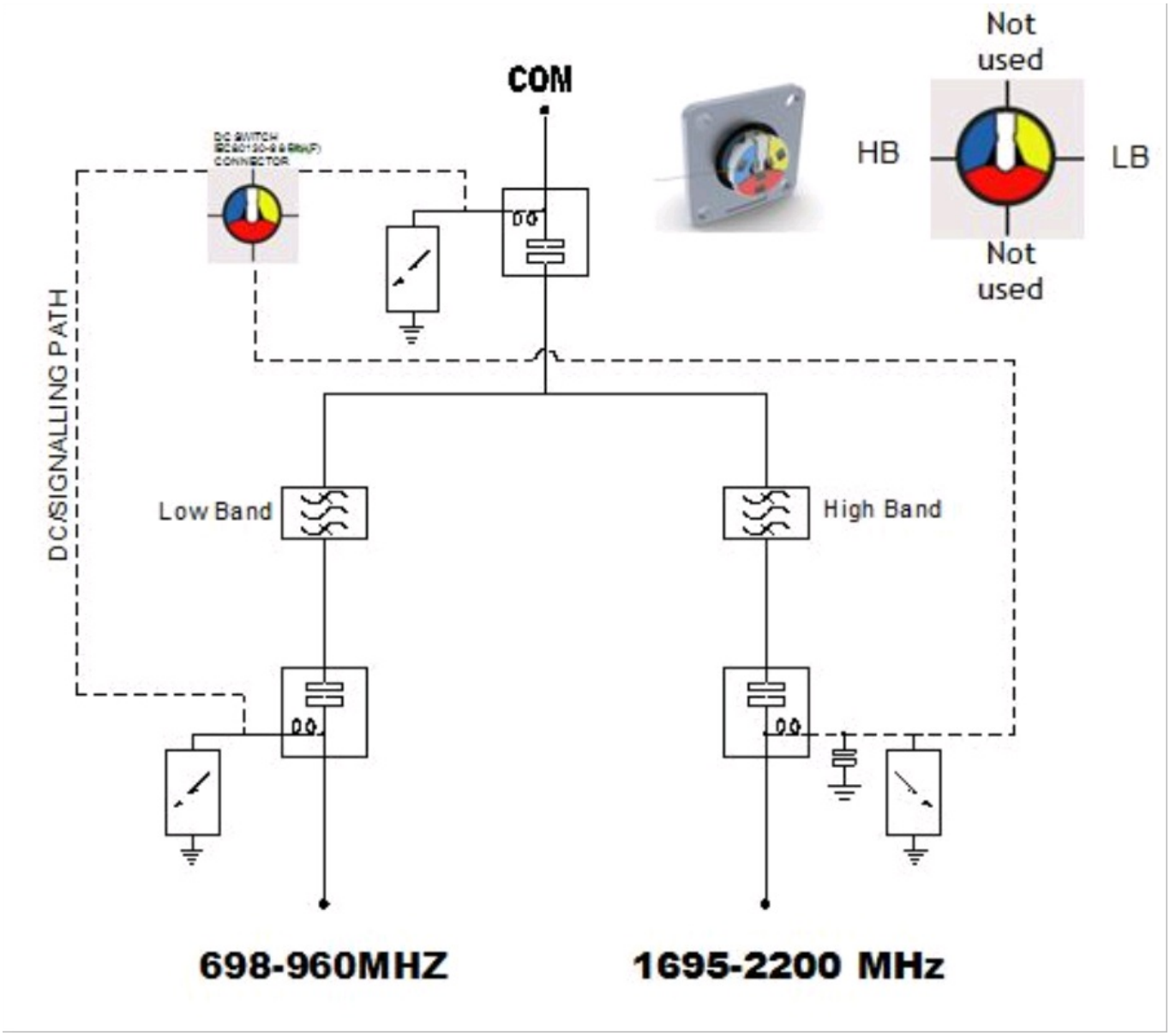
ENVIRONMENTAL	
For further details of environmental compliance, please contact Kaelus.	
Temperature range	-40ºC to +65ºC | -40ºF to +149ºF
Ingress protection	IP67
Lightning protection	RF: ±5kA maximum (8/20us), IEC61312-1
MTBF	>1,000,000 hours
Compliance	ETSI EN 300 019 class 4.1, RoHS

MECHANICAL	
Dimensions H x D x W	483 x 207 x 108mm | 19 x 8.14 x 7.09in (6 units in rack)
Dimensions H x D x W (single unit)	170 x 150 x 62mm | 6.69 x 5.9 x 2.44in
Dimensions H x D x W (twin unit)	170 x 150 x 109mm | 6.69 x 5.9 x 4.3in
Weight	2.9kg | 6.4lbs (single unit) 6kg | 13.2lbs (twin unit) 19kg | 41.9lbs (6 units in rack)
Finish	Painted, light grey (RAL7035)
Connectors	DIN 7-16 (F) x 3 long neck (single unit) x 6 long neck (twin unit) x 18 long neck (6 units in rack)
Mounting	Pole/wall bracket supplied with two metal clamps for 45-178 mm diameter poles or 19 inch or 23 inch rack

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
DBC0042F2V51-1	Diplexer, 698-960/1695-2200, DC switch
DBC0042F2V51-2	Diplexer, x2, 698-960/1695-2200, DC switch
DBC0042F2V51-6R	Diplexer, x6, 698-960/1695-2200, DC switch, optional 19 inch or 23 inch rack mount

ELECTRICAL BLOCK DIAGRAM



MECHANICAL BLOCK DIAGRAM

