

DBC0114F1V1-1

DIPLEXER 1900_AWS/WCS DC/AISG ON AWS/WCS PATH

The Kaelus DBC0114 is a bi-directional Diplexer, designed to combine or split 1900 and AWS/WCS bands. The DBC0114 provides low insertion loss and high return loss with excellent passive inter-modulation performance in an extremely small and lightweight IP67 capable package



FEATURES

- Enables antenna sharing for 1900 and AWS/WCS networks
- AWS-3 ready
- Offers low insertion loss
- Low passive IM performance
- Wall or mast mounting
- Single and twin models available
- 4.3-10 connectors standard

TECHNICAL SPECIFICATIONS

BAND NAME	1900	AWS/WCS
Passband	1850-1995MHz	1695-1780MHz / 2110–2360MHz
Insertion loss	0.35dB typical	
Return loss	20dB minimum, 24dB typical	
Absolute group delay	5ns typical	
Maximum input power	100W (average) / 1000W (PEP)	100W (average) / 1000W (PEP)
Isolation	40dB typical	40dB typical

ELECTRICAL	
Impedance	50Ohms
Intermodulation products	-155dBc maximum all ports with 2 x 20W carriers

DC / AISG	
DC/AISG path AWS/WCS to COM port	
Passband	0 – 3MHz
Insertion loss, single DC/AISG pass	1dB maximum
Return loss, single DC/AISG pass	12dB minimum
Input voltage range	± 31V
DC current rating	2A continuous, 4A peak

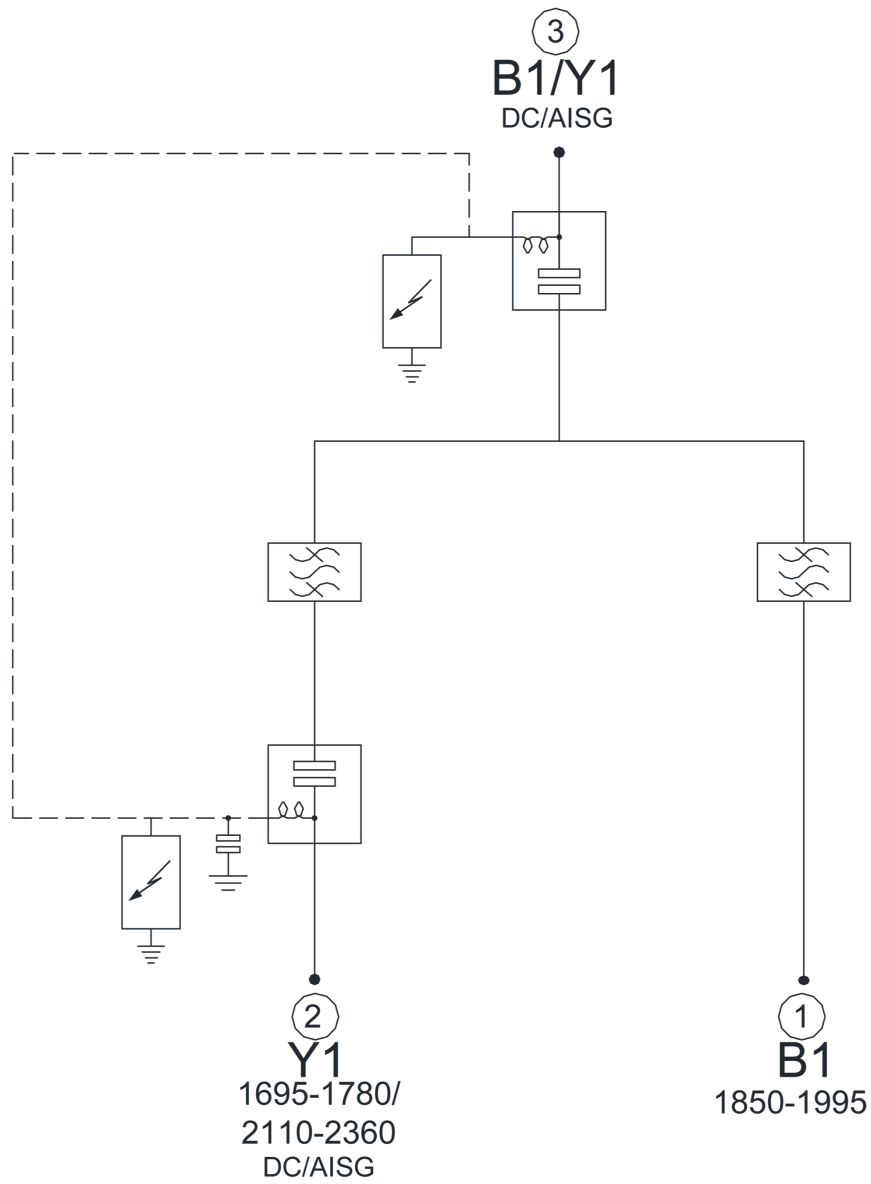
ENVIRONMENTAL	
For further details of environmental compliance, please contact Kaelus.	
Temperature range	-40°C to +65°C -40°F to +149°F
Ingress protection	IP67, Outdoor unit
Altitude	3000m
MTBF	>1,000,000 hours
Voltage withstanding	2kV per port

MECHANICAL	
Dimensions H x D x W (single unit)	160 x 90 x 44mm 6.3 x 3.56 x 1.73in
Dimensions H x D x W (twin unit)	160 x 90 x 91mm 6.3 x 3.56 x 3.58in
Weight	1.5kg 3.3lbs (single unit) 3.1kg 6.83lbs (twin unit)
Finish	Painted, light grey (RAL7035)
Connectors	RF: 4.3-10 (F) x 3 long neck
Wind Load	Front 103N, Side 24N (Single) Front 103N, Side 67N (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
DBC0114F1V1-1	SINGLE 1 in / 2 out	FIXED DC	4.3-10 (F)	DC to AWS/WCS
DBC0114F1V1-2	TWIN 2 in / 4 out	FIXED DC	4.3-10 (F)	DC to AWS/WCS

ELECTRICAL BLOCK DIAGRAM



SINGLE UNIT SCHEMATIC

MECHANICAL BLOCK DIAGRAM

