

DBC0081F3V51-1

TWIN SAME BAND COMBINER, 1900

Designed to combine two sub-bands within the 1900 band, the Kaelus DBC0081 provides a compact twin combining solution with low insertion. The DBC0081 solution minimizes feeders, TMA's and antennas thereby saving both capital and operational expenditure when combining two base stations.

FEATURES

- Allows two 1900 base stations to share feeders, TMAs and antennae
- Field selectable DC/AISG bypass with built-in lightning protection
- Low downlink and uplink insertion losses
- Suitable for indoor and outdoor use



TECHNICAL SPECIFICATIONS

BAND NAME	B1 (LO)	B1 (HI)
DOWNLINK		
Bandwidth	15MHz	25MHz
Insertion loss	0.5dB typical	
UPLINK		
Bandwidth	15MHz	25MHz
Insertion loss	0.65dB typical	0.8dB typical
ISOLATION COM PORT MUST BE TERMINATED IN 50OHMS		
B1 (LO) TX frequency range	35dB typical, 30dB minimum	
B1 (HI) TX frequency range	35dB typical, 30dB minimum	
B1 (LO) RX frequency range	35dB typical, 30dB minimum	
B1 (HI) RX frequency range	35dB typical, 30dB minimum	
ELECTRICAL		
Impedance	50Ohms	
Return loss	18dB minimum	
Intermodulation products	-161dBc typical / -155dBc maximum all ports with 2 x 20W carriers in RX band	
Maximum input power	100W (average) / 1kW (PEP)	
Guardband (frequency separation between B1 LO and B 1 HI)	20MHz minimum	
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	

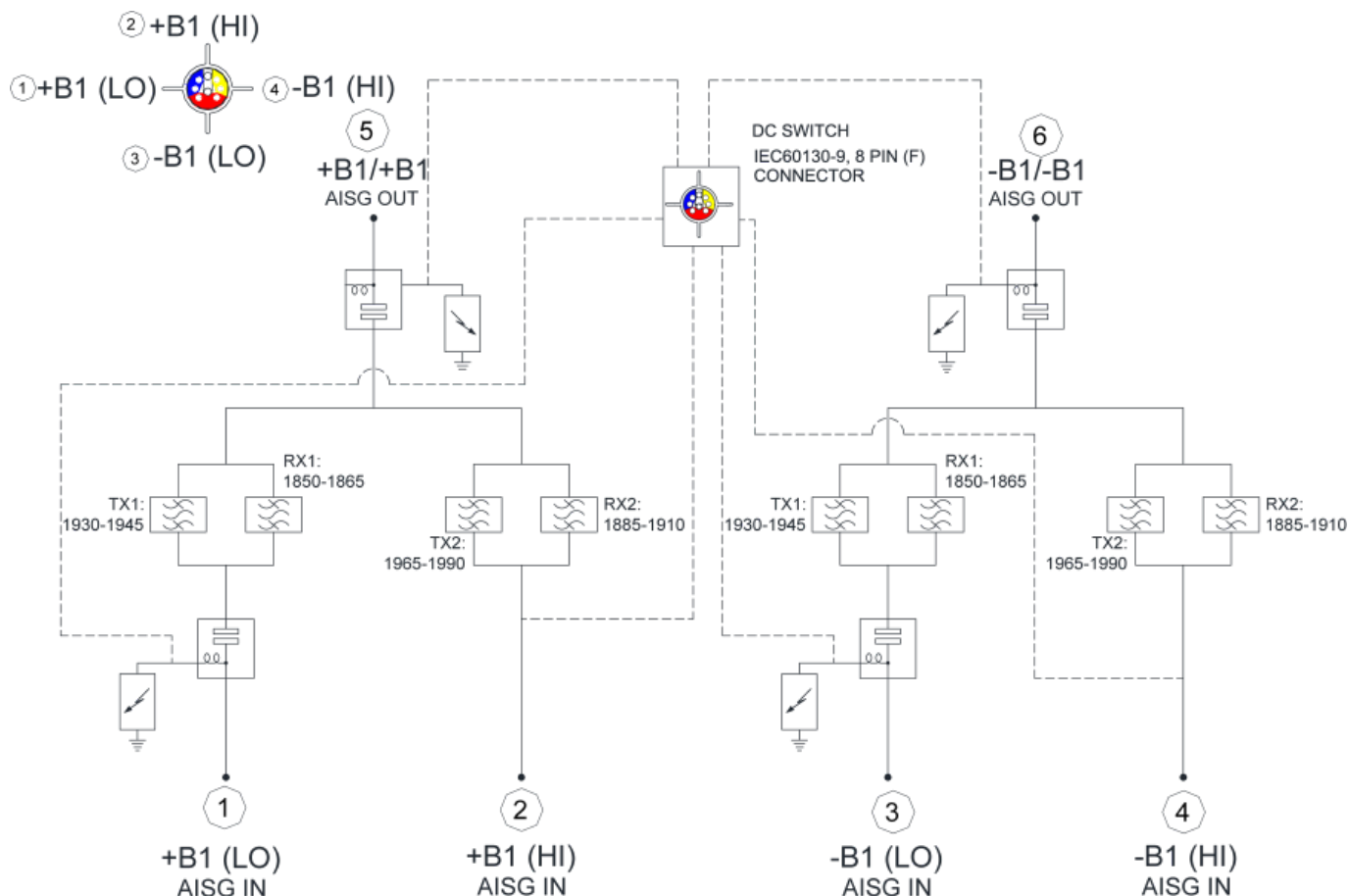
ENVIRONMENTAL	
For further details of environmental compliance, please contact Kaelus.	
Temperature range	-20°C to +55°C +4°F to +131°F
Ingress protection	IP67
Altitude	2,000m 6,500ft
Lightning protection	RF: ±5kA maximum (8/20us)
MTBF	>1,000,000 hours
Compliance	ETSI EN 300 019 class 4.1, RoHS

MECHANICAL	
Dimensions H x D x W	203 x 158 x 109mm 8 x 6.2 x 4.3in
Weight	6.30kg 13.9lbs
Finish	Powder coated, light grey (RAL7035)
Connectors	DIN 7-16 (F) x 6 long neck
Mounting	Pole/wall bracket supplied with two metal clamps for 45-178 mm diameter poles

ORDERING INFORMATION

PART NUMBER	B1 (LO) BAND	B1 (HI) BAND	DESCRIPTION
DBC0081F1V51-1	A	E, F & C	Twin Same Band Combiner 1900 - DC/AISG field selectable through external DC switch
DBC0081F3V51-1	A4,A5, D	F&C&G	Twin Same Band Combiner 1900 - DC/AISG field selectable through external DC switch
DBC0081F4V51-1	A5, D&B3	C&G	Twin Same Band Combiner 1900 - DC/AISG field selectable through external DC switch

ELECTRICAL BLOCK DIAGRAM



MECHANICAL BLOCK DIAGRAM

