

DBC0097

TWIN SAME BAND COMBINER, 1900

Designed to combine two 1900MHz BTS with minimum 5MHz spacing, the Kaelus DBC0097 provides a compact twin combining solution with low insertion. The DBC0097 solution minimizes feeders, TMA's and antennas thereby saving both capital and operational expenditure when combining two base stations.



FEATURES

- Allows CDMA and LTE base stations to share feeders, TMAs and antennae
- Low downlink and uplink insertion losses
- DC/AISG bypass field settable
- Suitable for indoor and outdoor use
- Down to 5MHz guard band

TECHNICAL SPECIFICATIONS

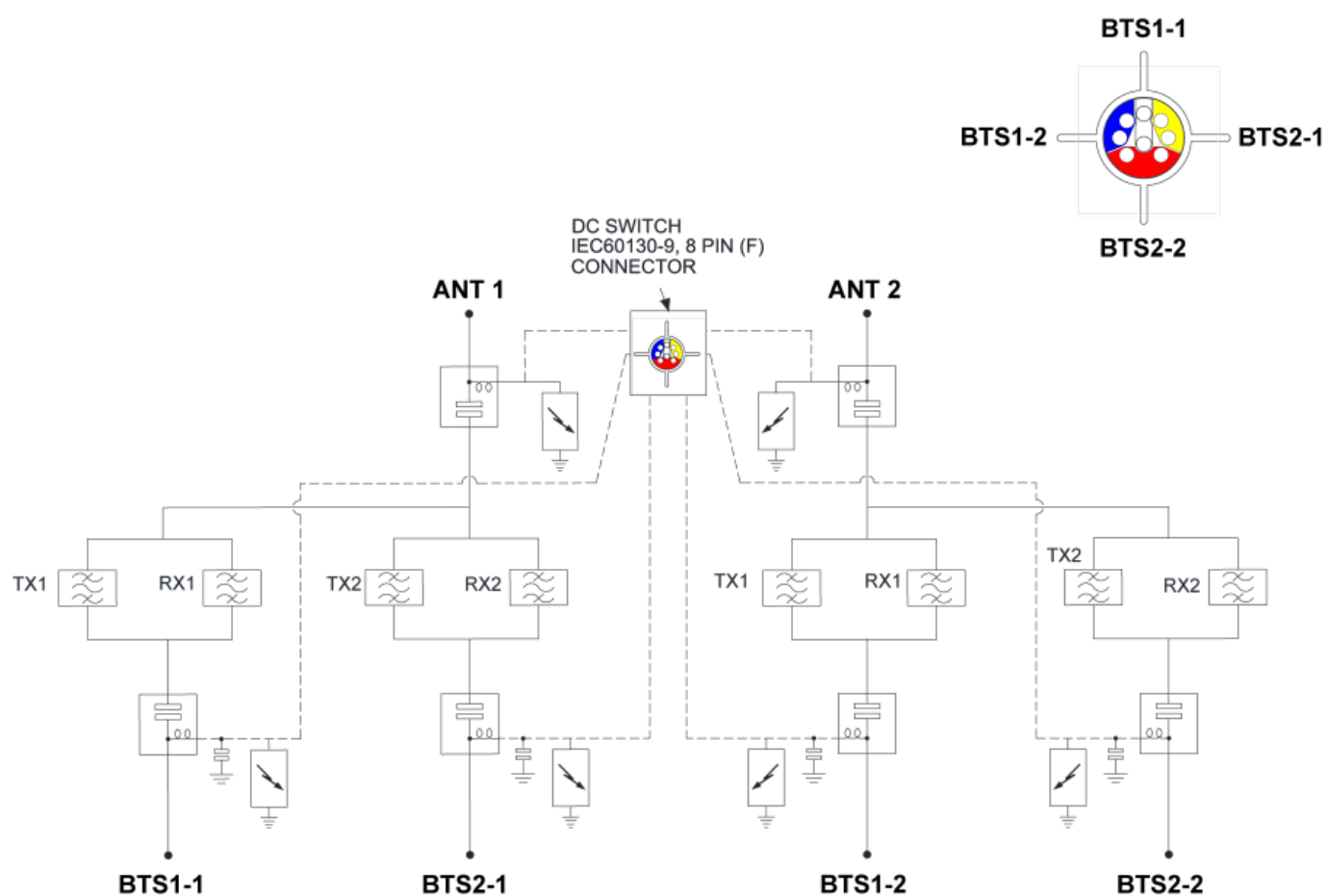
BAND NAME	B-1 DOWNLINK (TX) AT BTS1-1, BTS1-2	B-1 UPLINK (RX) AT BTS1-1, BTS1-2	B-2 DOWNLINK (TX) AT BTS2-1, BTS2-2	B-2 UPLINK (RX) AT BTS2-1, BTS2-2
Bandwidth	20MHz (including 500kHz)	20MHz (including 500kHz)	15MHz (including 500kHz)	15MHz (including 500kHz)
Insertion Loss (excluding 500kHz guardband)	0.5dB typical, 1.0dB maximum	0.5dB typical, 1.0dB maximum	0.5dB typical, 1.0dB maximum	0.5dB typical, 1.0dB maximum
ISOLATION				
COM port must be terminated in 50ohms				
B-1 TX frequency range	35dB typical, 30dB minimum			
B-2 TX frequency range	35dB typical, 30dB minimum			
B-1 RX frequency range	35dB typical, 30dB minimum			
B-2 RX frequency range	35dB typical, 30dB 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			
ELECTRICAL				
Impedance	50Ohms			
Return loss	20dB minimum			
Intermodulation products	-161dBc typical / -155dBc maximum on all ports with 2 x 20W carriers in RX band			
Maximum input power	150W (average) / 1.5kW (PEP)			
Guardband (frequency separation between BTS1 and BTS2)	5MHz minimum			
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			
Lightning protection	±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	240 x 55 x 450mm 9.45 x 2.17 x 17.72in
Weight	9kg 19.84lbs estimate
Finish	Painted, 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	B-1 BAND	B-2 BAND	DESCRIPTION
Note*: For DBC0097F1V51-1, BTS1 band actually includes A3+15MHz lower band; For DBC0097F11V51-1, BTS2 band actually includes G+H+5MHz higher band.			
DBC0097F1V51-1	A3	A5,D&B3	Twin Same Band Combiner 1900
DBC0097F2V51-1	A3 & A4	D,B3&B4	Twin Same Band Combiner 1900
DBC0097F3V51-1	A	B	Twin Same Band Combiner 1900
DBC0097F4V51-1	A&D	B4,B5&E	Twin Same Band Combiner 1900
DBC0097F5V51-1	A4,A5,D&B3	B5,E & F	Twin Same Band Combiner 1900
DBC0097F6V51-1	A5,D,B3&B4	E, F & C3	Twin Same Band Combiner 1900
DBC0097F7V51-1	D&B	F, C3&C4	Twin Same Band Combiner 1900
DBC0097F8V51-1	B&E	C	Twin Same Band Combiner 1900
DBC0097F9V51-1	B4,B5,E&F	C4, C5&G	Twin Same Band Combiner 1900
DBC0097F10V51-1	B5,E, F&C3	C5, G&H	Twin Same Band Combiner 1900
DBC0097F11V51-1*	E, F, C3&C4	G&H	Twin Same Band Combiner 1900

ELECTRICAL BLOCK DIAGRAM



MECHANICAL BLOCK DIAGRAM

