

DBC0037F1V1-1

DIPLEXER 698-960/1900-AWS

The Kaelus DBC0037F1V1 cross band coupler combines the lower 698MHz to 960MHz frequency bands with the higher 1900-AWS frequency bands. The diplexer is designed to minimize infrastructure capital expenditure and improve network reliability.

FEATURES

- LTE ready
- Auto select DC/AISG pass with built-in lightning protection
- High band port has DC priority
- Single or twin configurations available for indoor or outdoor use
- Monitor port



TECHNICAL SPECIFICATIONS

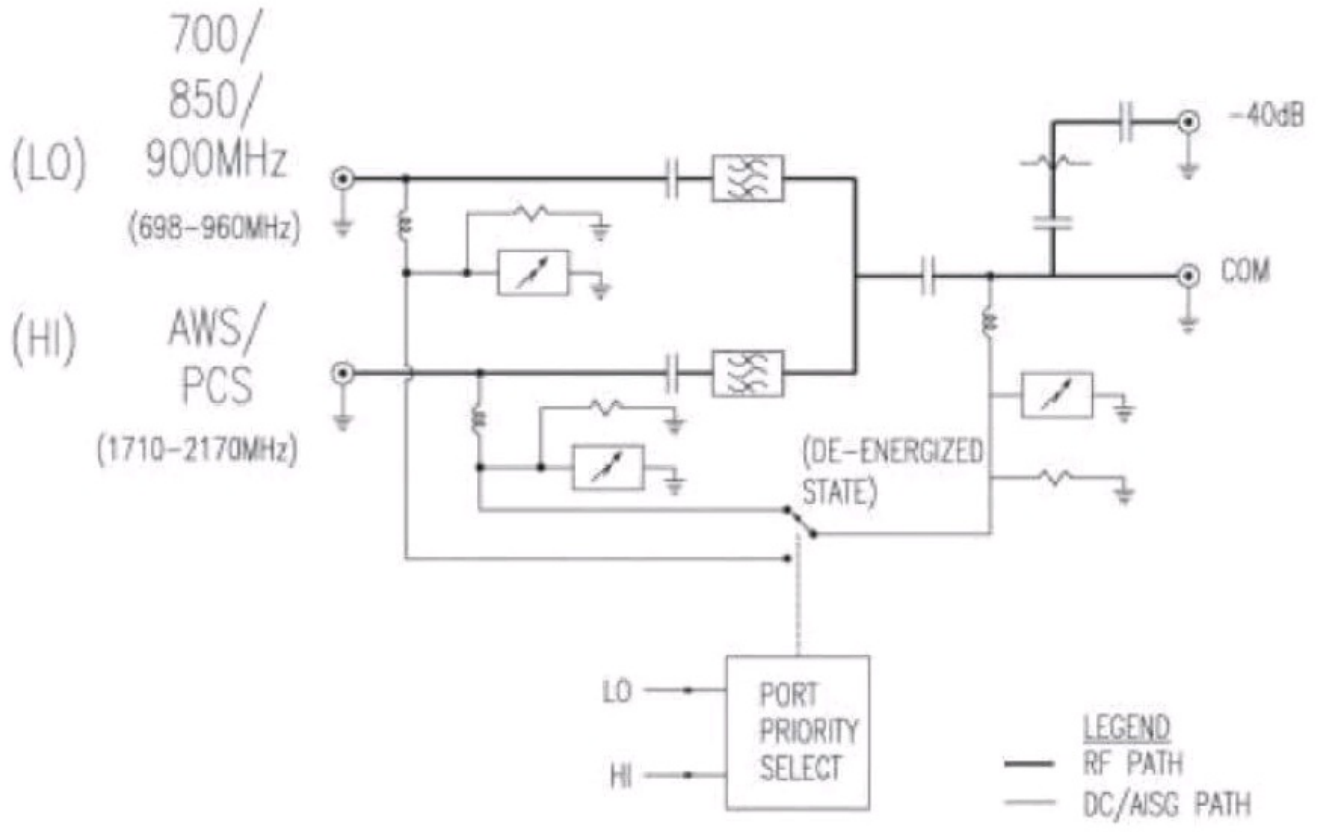
BAND NAME	698-960 (LO)	1900-AWS (HI)
Passband	698 - 960MHz	1710 - 2170MHz
Insertion loss	0.11dB typical, 0.15dB maximum	0.12dB typical, 0.15dB maximum
Return loss	20dB minimum	
Group delay variation	0.1ns / 180KHz maximum over bandwidth	
Maximum input power	500W (average) / 5kW (PEP)	500W (average) / 5kW (PEP)
Phase linearity over any 180MHz	0.1° / 180KHz maximum over bandwidth	
ELECTRICAL		
Isolation to 700-900		60dB minimum
Isolation to 1900-AWS	60dB minimum	
Monitor port coupling	-40dB relative to COM port	
Impedance	50Ohms	
Intermodulation products	-161dBc typical / <-155dBc all ports with 2 x20W carriers	
DC / AISG		
DC/AISG path to COM port dependent on port voltages		
Input voltage range	31V DC maximum	
DC current rating	2A continuous, 4A peak	
LO port wins	(LO>7V) and (HI<6V)	
HI port wins	(HI>7V) or (LO<2.5V)	
DC supply current: LO port	60mA, typical when LO port wins otherwise 2mA	
DC supply current: HI port	1mA typical	
DC breakdown	1000V	
Voltage drop in DC path	2.2V maximum at 2A	
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 (8/20us) on 700-850-900, 1900-AWS and COM ports	
Compliance	ETSI EN 300 019 class 4.1	

MECHANICAL	
Dimensions H x D x W (single unit)	170 x 62 x 150mm 6.69 x 2.44 x 5.9in
Dimensions H x D x W (twin unit)	170 x 150 x 109mm 6.7 x 5.9 x 4.3in
Weight	3kg 6.6lbs (single unit) 6kg 13.2lbs (twin unit)
Finish	Painted, light grey (RAL7035)
Connectors	DIN 7-16 (F) long neck x 3, monitor N type (F) (single unit) DIN 7-16 (F) long neck x 6, monitor N type (F) x 2 (twin unit)
Mounting	Pole/wall bracket supplied with two metal clamps for 45-178 mm diameter poles

ORDERING INFORMATION

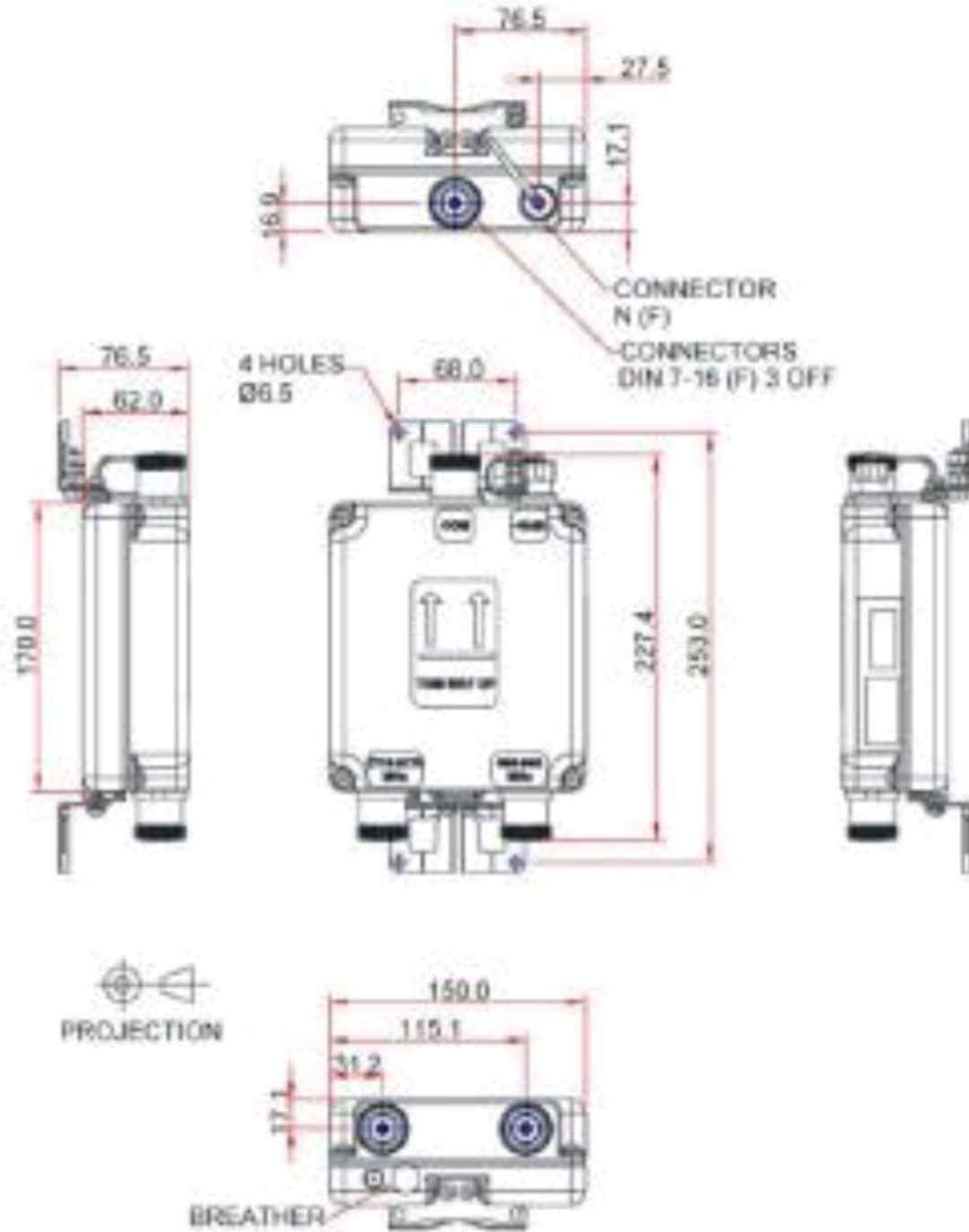
PART NUMBER	DESCRIPTION
DBC0037F1V1-1	Diplexer, 698-960 / 1900-AWS, monitor port, DC AUTO, 1900 priority
DBC0037F1V1-2	Diplexer, x2, 698-960 / 1900-AWS, monitor port, DC AUTO 1900 priority

ELECTRICAL BLOCK DIAGRAM



DBC0037F1V1-1

MECHANICAL BLOCK DIAGRAM



DBC003/F-1V1-1 Mechanical Diagram