

# DBC0051F3V51-1

## DIPLEXER 1900/AWS3-4

Designed to combine 1900 and AWS technologies the Kaelus DBC0051 provides a low loss combiner with excellent insertion loss and passive inter-modulation performance. The DBC0051 is AWS 3 / AWS 3U and AWS 4 ready.

### FEATURES

- AWS 3 / AWS 3U and AWS4 ready
- Enables the sharing of antennas by 1900 and AWS networks
- Multiple DC bypass/AISG configurations field settable
- Offers low insertion loss and high isolation
- Low passive IM performance
- Wall or mast mounting



### TECHNICAL SPECIFICATIONS

BAND NAME	B1 (1900)	B1 (AWS)
Passband	1850-1990MHz	1695-1780MHz / 2110–2200MHz
Insertion loss	0.2dB typical	
Group delay variation	10ns maximum (in any 3.84MHz band)	
Maximum input power	250W (average) / 3kW (PEP)	250W (average) / 3kW (PEP)
Attenuation	50dB minimum, 70dB typical @ AWS	50dB minimum, 57 dB typical @ 1900

#### ELECTRICAL

Impedance	50Ohms
Return loss	22dB minimum, 24dB typical
Intermodulation products	-161dBc typical / -155dBc maximum all ports with 2 x 20W carriers
Isolation	50dB

#### DC / AISG

A field selectable DC/AISG path is achieved via mechanical links on a IEC60130-9, 8-pin female connector (see electrical block 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.

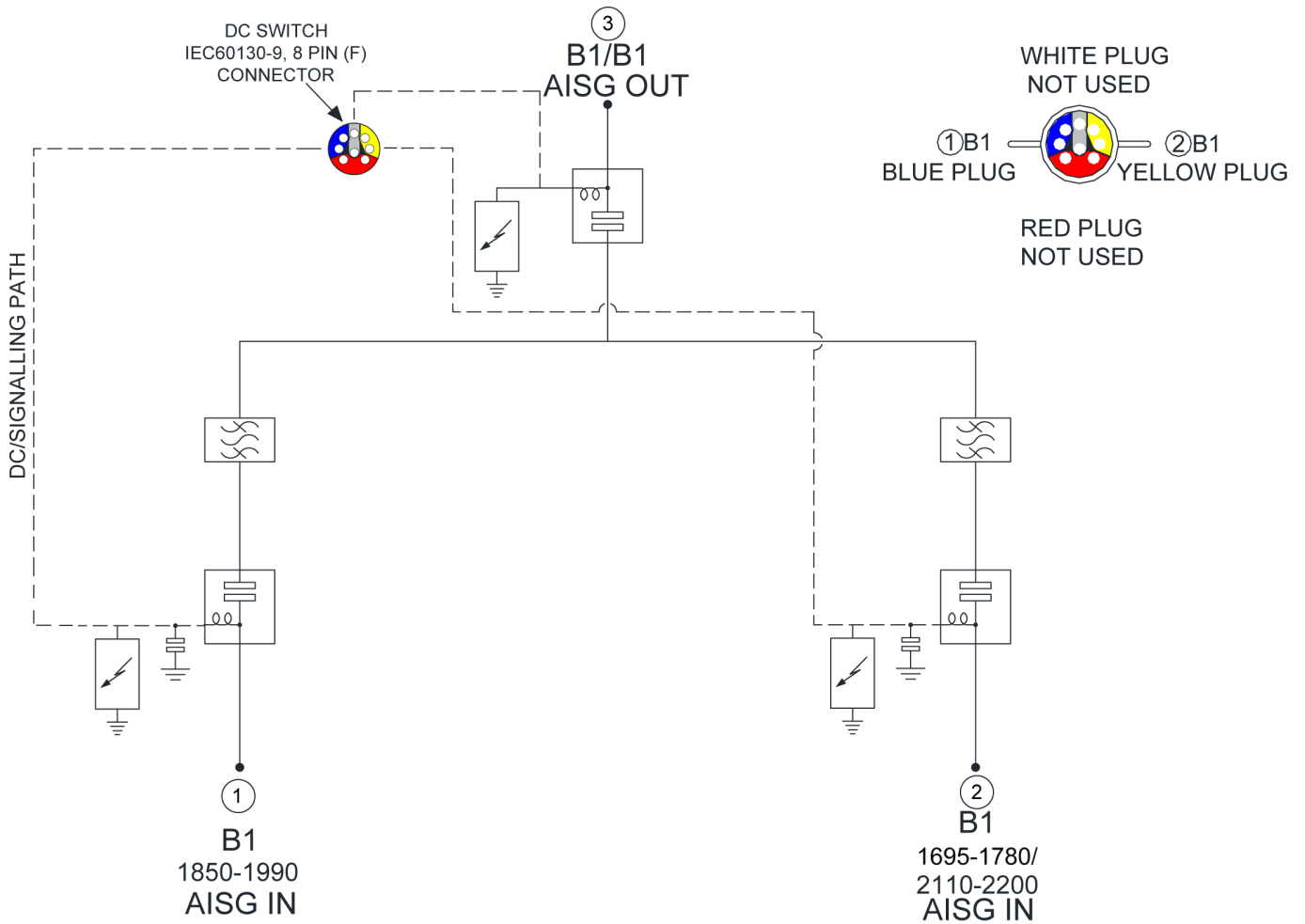
Temperature range	-40°C to +65°C   -40°F to +149°F
Ingress protection	IP67
Lightning protection	RF: ±5kA maximum (8/20us), IEC61000-4-5
MTBF	>1,000,000 hours
Compliance	ETSI EN 300 019 class 4.1, RoHS

MECHANICAL	
Dimensions H x D x W (single unit)	217 x 127 x 55mm   8.54 x 5.0 x 2.17in
Dimensions H x D x W (twin unit)	217 x 127 x 113mm   8.54 x 5.0 x 4.45in
Weight	3.4kg   7.5lbs (single unit) 6.8kg   15lbs (twin unit)
Finish	Painted, light grey (RAL7035)
Connectors	DIN 7-16 (F) x 3 long neck
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
DBC0051F3V51-1	SINGLE 1 in / 2 out	DC SWITCH	7/16 (F)	FIELD CONFIGURABLE
DBC0051F3V51-2	TWIN 2 in / 4 out	DC SWITCH	7/16 (F)	FIELD CONFIGURABLE
DBC0051F3V51-6R	RACK 6 in / 12 out	DC SWITCH	7/16 (F)	FIELD CONFIGURABLE

**ELECTRICAL BLOCK DIAGRAM**



**MECHANICAL BLOCK DIAGRAM**

