

TBC0030F2V1-2

TRIPLEXER 700-850/1900/AWS

Designed to combine 700-850, 1900 and AWS technologies, the Kaelus TBC0030 saves significant capital and operational expenses by limiting feeder runs, and components needed on the tower. Available in an outdoor package the TBC0030 has the following features and benefits.

FEATURES

- Combines 700-850, 1900 and AWS bands
- DC/AISG bypass options field settable
- Very low insertion loss
- Designed for low passive intermodulation



TECHNICAL SPECIFICATIONS

BAND NAME	700-850	1900	AWS
Passband	698 - 894MHz	1850 - 1990MHz	1695 - 1780MHz / 2110 - 2200MHz
Insertion loss	0.25dB typical	0.30dB typical	0.30dB typical
Return loss	20dB minimum, 24dB typical	22dB minimum, 24dB typical	22dB minimum, 24dB typical
Group delay variation	0.35ns typical @ 700 band 2ns typical @ 850 band	7ns typical for a WCDMA/UMTS single carrier bandwidth	2ns typical for a WCDMA/UMTS single carrier bandwidth
Maximum input power	500W (average) / 5kW (PEP)	500W (average) / 5kW (PEP)	150W (average) / 1.5kW (PEP)
Rejection in 700-850	N/A	70dB minimum, 80dB typical	70dB minimum, 80dB typical
Rejection in 1900	70dB minimum, 80dB typical	N/A	50dB minimum, 55dB typical
Rejection in AWS	70dB minimum, 80dB typical	50dB minimum, 58dB typical	N/A

ELECTRICAL

Impedance	50Ohms
Intermodulation products	-161dBc typical / -153dBc maximum all ports with 2 x 20W carriers

DC / AISG

A field selectable DC/AISG path is achieved via mechanical links on an IEC60130-9, 8-pin female connector (see mechanical diagram). Kaelus recommend that, due to AISG link budget reasons, a maximum of 2 DC/AISG paths are activated simultaneously without active repeating of the AISG signal.

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.

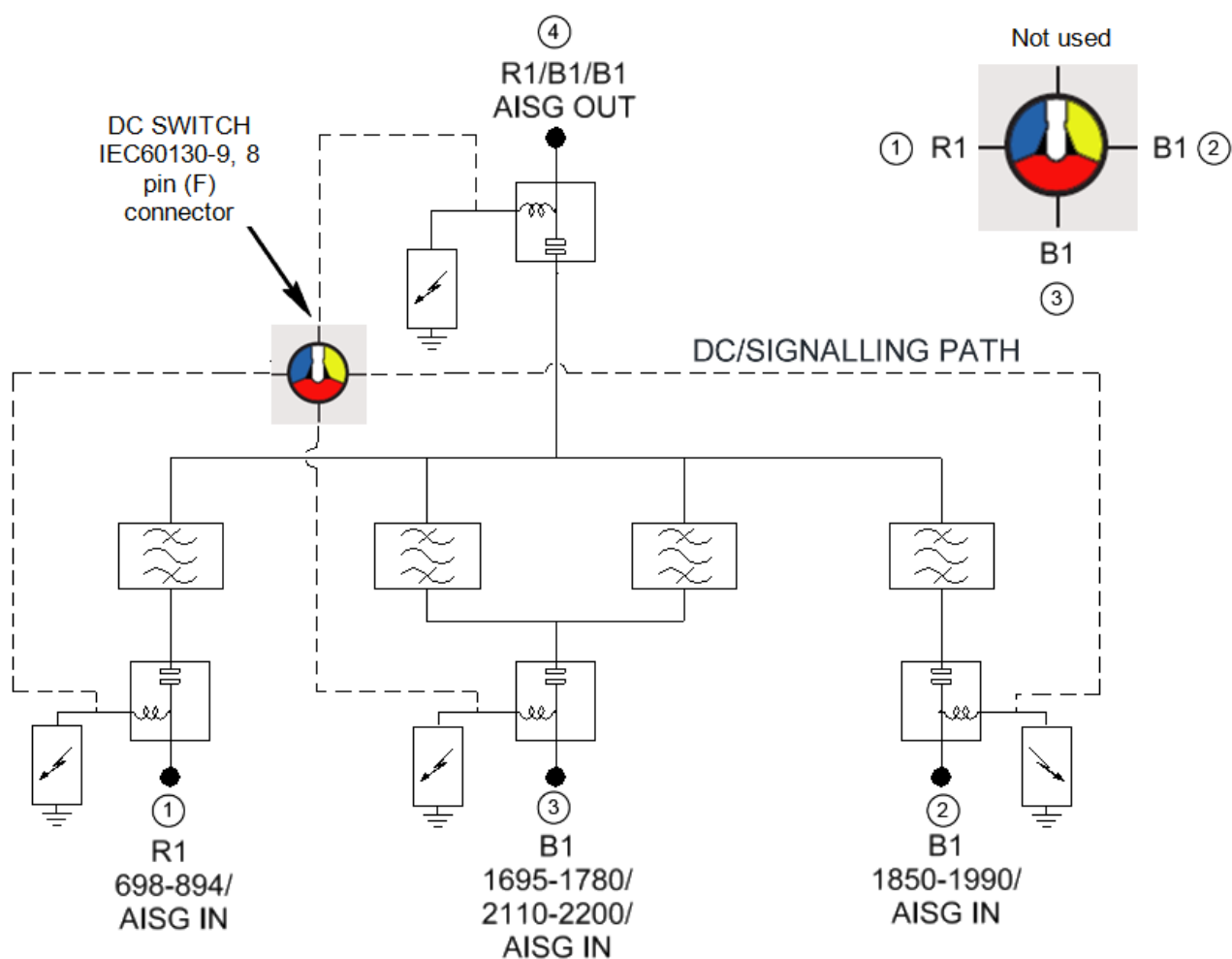
Temperature range	-40°C to +65°C -40°F to +149°F
Ingress protection	IP67
Altitude	2,000m 6,560ft
Lightning protection	IEC61000-4-5, RF: ±5kA maximum (8/20us)
MTBF	>1,000,000 hours
Compliance	ETSI EN 300 019 class 4.1, RoHS

MECHANICAL	
Dimensions H x D x W (single unit)	250 x 200 x 71mm 9.8 x 7.9 x 2.8in (excluding bracket)
Dimensions H x D x W (twin unit)	250 x 200 x 145mm 9.8 x 7.9 x 5.7in (excluding bracket)
Weight	6kg 13.23lbs (single unit) 12kg 26.46lbs (twin unit)
Finish	Powder coated, light grey (RAL7035)
Connectors	DIN 7-16 (F) x 4 long neck (single unit)
Mounting	Pole/wall bracket supplied with two metal clamps for 45-178 mm diameter poles for single and twin unit

ORDERING INFORMATION

PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS	DC/AISG CONFIGURATION
TBC0030F2V1-1	SINGLE 1 in / 3 out	DC SWITCH	7/16 (F)	FIELD CONFIGURABLE
TBC0030F2V1-2	TWIN 2 in / 6 out	DC SWITCH	7/16 (F)	FIELD CONFIGURABLE
TBC0030F2V1-6R	RACK 6 in / 18 out	DC SWITCH	7/16 (F)	FIELD CONFIGURABLE

ELECTRICAL BLOCK DIAGRAM



MECHANICAL BLOCK DIAGRAM

