

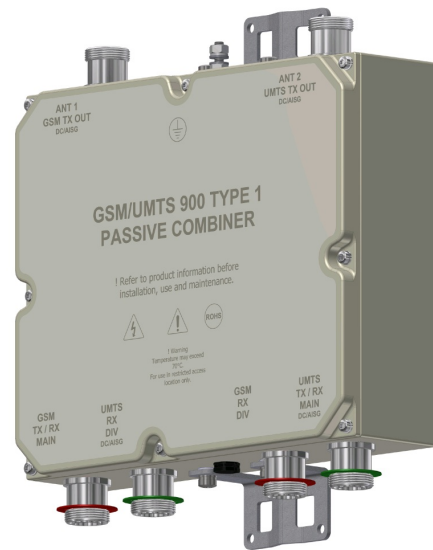
ACM0008F1V1-1

SAME BAND COMBINER, 900 TYPE 1 PASSIVE

The Kaelus ACM0008 is a passive combiner used to combine two 900MHz base stations to a single feeder with minimal downlink (TX) Insertion loss. Normally used in conjunction with the Kaelus 900MHz TMA this combiner saves the operator capital and operational expenditure by minimising the number of feeders required.

FEATURES

- Combines two 900MHz base stations onto a single feeder with low downlink insertion losses
- Allows the re-use of the existing antenna, 900 TMA's and feeder hardware
- Suitable for indoor or outdoor use, suited for masthead sites with TMA/MHAs
- Variable DC/AISG paths configured in the factory for antenna & TMA control
- RX div ports protected against damage from erroneous Tx connection



TECHNICAL SPECIFICATIONS

PORT NAME	DOWNLINK (BTS 1 TXB)	UPLINK (BTS RX)
Passband	935 - 960MHz	890 - 915MHz
Bandwidth	25MHz	
Insertion loss	0.45dB maximum at band edge, 0.35dB typical	5dB maximum at band edge, 4.2dB typical at mid-band
Return loss	18dB minimum	
EVM	3 % maximum across 4MHz	
Group delay variation	30ns maximum / 20ns maximum across 4MHz	80ns maximum / 15ns maximum across 4MHz
Absolute group delay	70ns maximum / 50ns typical	200ns maximum / 130ns typical
Maximum input power	200W (average) / 1.6kW (PEP)	N/A
Intermodulation products	-150dBc maximum all ports with 2 x 20W carriers	
Attenuation ANT to RX DIV (BTS1 or BTS2)	40dB minimum TX band	

ELECTRICAL

Impedance	50Ohms
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ISOLATION (ANT1 AND ANT2 TERMINATED)

	TX BAND	RX BAND
BTS2 MAIN to BTS1 RX DIV	35dB minimum	35dB minimum
BTS1 RX DIV to BTS2 MAIN	35dB minimum	20dB minimum
BTS2 MAIN to BTS1 RX DIV	35dB minimum	35dB minimum
BTS2 MAIN to BTS1 MAIN	35dB minimum	35dB minimum
BTS1 RX DIV to BTS2 RX DIV	35dB minimum	35dB minimum
BTS1 RX DIV to BTS1 MAIN	35dB minimum	35dB minimum
BTS1 MAIN to BTS2 RX DIV	35dB minimum	35dB minimum
BTS2 RX DIV to BTS1 MAIN	35dB minimum	20dB minimum

DC / AISG	
See ordering information below, other configurations available on request from Kaelus.	
Passband	0 - 3MHz
Insertion loss	1.0 dB maximum
Return loss	12dB minimum
Input voltage range	± 33V maximum
DC current rating	2A maximum

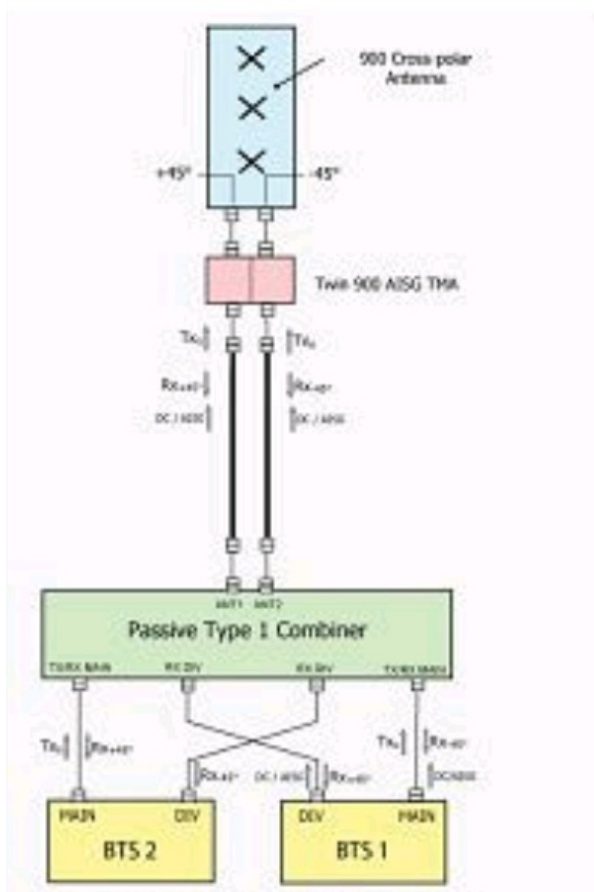
ENVIRONMENTAL	
For further details of environmental compliance, please contact Kaelus.	
Temperature range	-40°C to +65°C -40°F to +149°F
Ingress protection	IP67
Altitude	2000m maximum
Lightning protection	RF: ±5kA maximum (8/20us), IEC61312-1

MECHANICAL	
Dimensions H x D x W	250 x 300 x 86mm 9.8 x 11.8 x 3.38in
Weight	10.5kg 23.14lbs estimated
Finish	Painted, light grey (RAL7035)
Connectors	DIN 7-16 (F) x 6
Mounting	Pole/wall bracket supplied with two metal clamps for 45-178 mm diameter poles

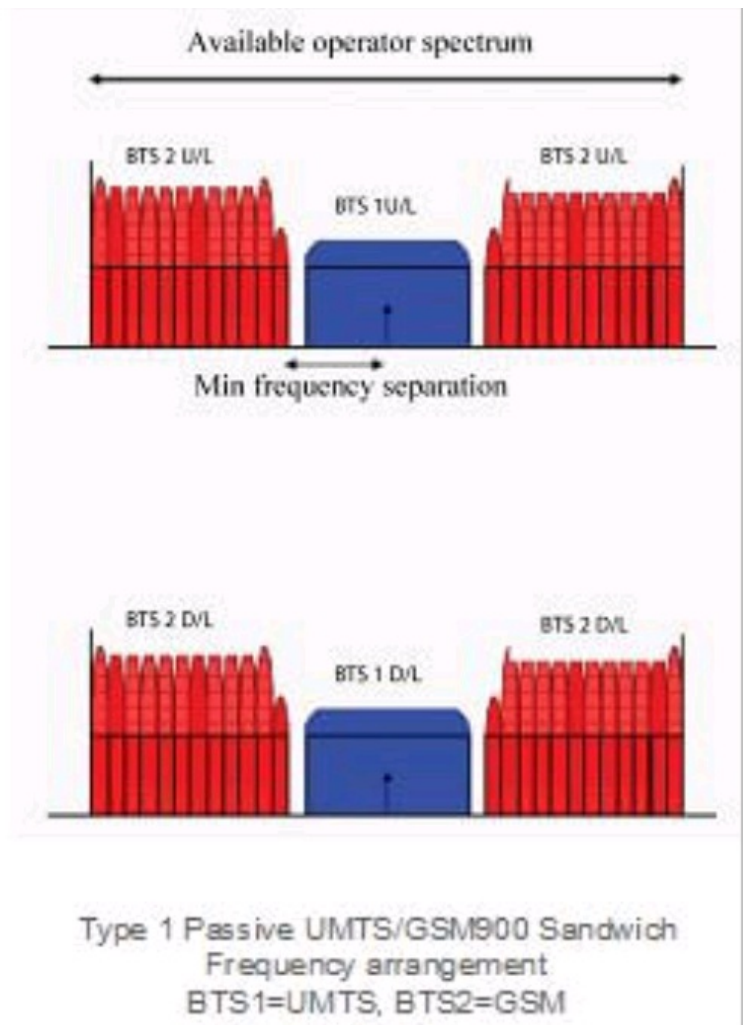
ORDERING INFORMATION

PART NUMBER	DESCRIPTION
ACM0008F1V1-1	Same band combiner, 900 type 1 passive
Downlink (TX) passband	935 - 960MHz
Uplink (RX) passband	890 - 915MHz
DC pass	ANT1 to BTS1 RX Div, ANT2 to BTS1 Main
ACM0008F2V1-1	Same band combiner, 900 type 1 passive
Downlink (TX) passband	925 - 950MHz
Uplink (RX) passband	880 - 905MHz
DC pass	ANT1 to BTS1 RX Div, ANT2 to BTS1 Main

SYSTEM DIAGRAM



ACM0008 Application Diagram
Single Sector



MECHANICAL BLOCK DIAGRAM

