

## ACM0008FxVx-1

### | SAME BAND COMBINER, 900 TRIASX TYPE 1 FULL BAND 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.

**TRIASX**  
ADVANTAGE

### PRODUCT 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 |

#### | DOWNLINK (BTS 1 TXB)

Passband	925 – 960MHz
Bandwidth	25MHz within the passband
Insertion loss	0.45dB max at band edge, 0.35dB typ
Return loss	18dB min
Group delay variation across 4MHz	20ns max
Group delay variation across passband	30ns max
Absolute group delay max	70ns max   50ns typ
EVM across 4MHz channel	3 % max

#### | UPLINK (BTS RX)

Passband	880– 915MHz
Bandwidth	25MHz within the passband
Insertion loss	5dB max at band edge, 4.2 dB typ at midband
Return loss	18dB min
Group delay variation across 4MHz	15ns maximum
Group delay variation across passband	80ns max
Absolute group delay max	200ns max   130ns typ

## TECHNICAL SPECIFICATIONS CONTINUED |

### | GENERAL SPECIFICATIONS

Impedance	50ohms
Power handling	200W average / 1600W PEP
Intermodulation: Reflected at BTS Port RX band	<-150 dBc with 2 x 20W carriers
Attenuation ant to RX div (BTS1 or BTS2)	TX band, 40dB min

### | ISOLATION (ANT1 AND ANT2 TERMINATED)

	In TX Band	In RX Band
BTS2 MAIN to BTS1 RX DIV	35dB min	35dB min
BTS1 RX DIV to BTS2 MAIN	35dB min	20dB min
BTS2 MAIN to BTS1 RX DIV	35dB min	35dB min
BTS2 MAIN to BTS1 MAIN	35dB min	35dB min
BTS1 RX DIV to BTS2 RX DIV	35dB min	35dB min
BTS1 RX DIV to BTS1 MAIN	35dB min	35dB min
BTS1 MAIN to BTS2 RX DIV	35dB min	35dB min
BTS2 RX DIV to BTS1 MAIN	35dB min	20dB min

### | DC/AISG PATH, FACTORY CONFIGURABLE TO ANY PORT

Paths	See ordering information below, other configurations available contact Kaelus details
Passband/insertion loss	DC – 3 MHz/1.0dB max
Return loss	12dB min
Input voltage / current	± 33V max, 2A max

### | ENVIRONMENTAL

For details regarding environmental compliance, please contact Kaelus.

Operating temperature	-40 to +65°C   -40° to 149°F
Operating altitude	2000m max
IP rating	IP67 (housing)
Surge protection	Gas arrestor fitted on each port. M6 earth stud fitted.

### | MECHANICAL

Dimensions	250 x 300 x 86mm   9.84 x 11.81 x 3.38in (excluding brackets and mounting)
Weight	10.5kg   23lbs
Connectors	DIN 7/16 (F) x 6
Mounting	Bracket for pole/wall mounting included

## ORDERING INFORMATION |

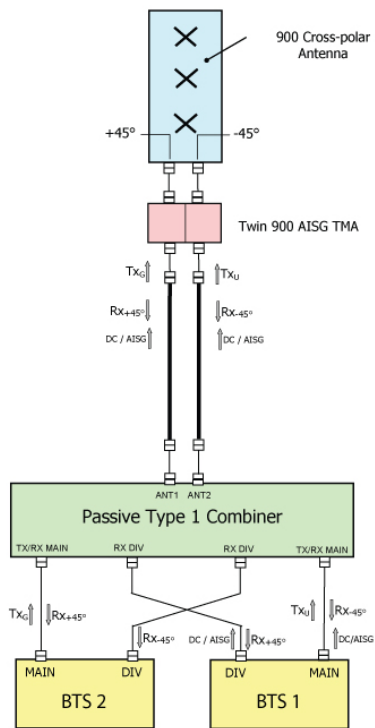
### Kaelus Part Number: ACM0008F1V1-1

Downlink (TX) passband	935 - 960MHz
Uplink (RX) passband	890 - 915MHz
DC pass	ANT1 to BTS1 RX Div, ANT2 to BTS1 Main

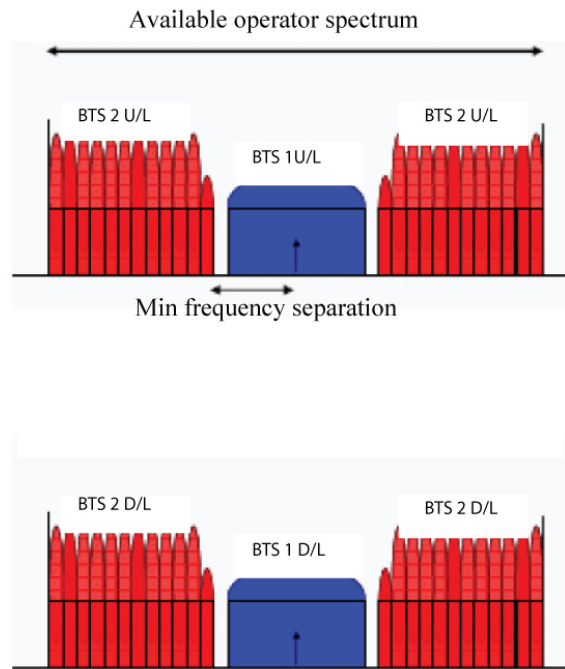
### Kaelus Part Number: ACM0008F2V1-1

Downlink (TX) passband	925 - 950MHz
Uplink (RX) passband	880 - 905MHz
DC pass	ANT1 to BTS1 RX Div, ANT2 to BTS1 Main

## APPLICATIONS |

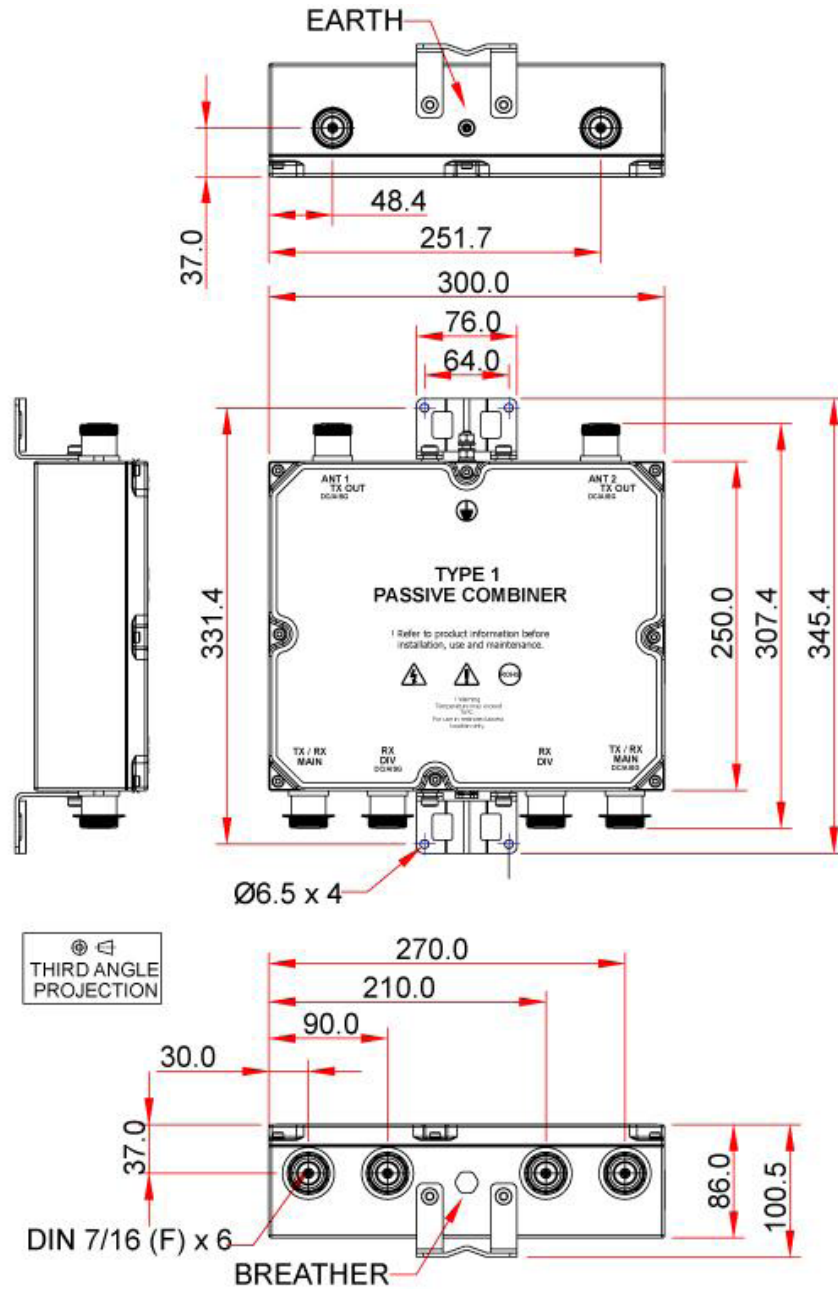


ACM0008 Application Diagram  
Single Sector



Type 1 Passive UMTS/GSM900 Sandwich  
Frequency arrangement  
BTS1=UMTS, BTS2=GSM

## MECHANICAL BLOCK DIAGRAM |



Information contained within this datasheet is valid at the time of release and may be reviewed by Kaelus at any time.