

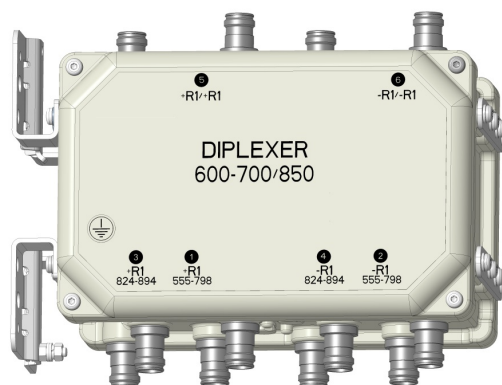
# DBCT108F1V10-2

## DIPLEXER 600-700/850

The Kaelus DBCT108 is a bi-directional Diplexer designed to combine 600-700 with 850 technologies, the DBCT108 provides excellent insertion loss and passive intermodulation performance. Bidirectional passage of DC/AISG is provided in this outdoor product.

### FEATURES

- Enables antenna/feeder sharing for 600-700 and 850 networks
- Designed and 100% tested for low passive intermodulation
- Low insertion losses
- Good return loss



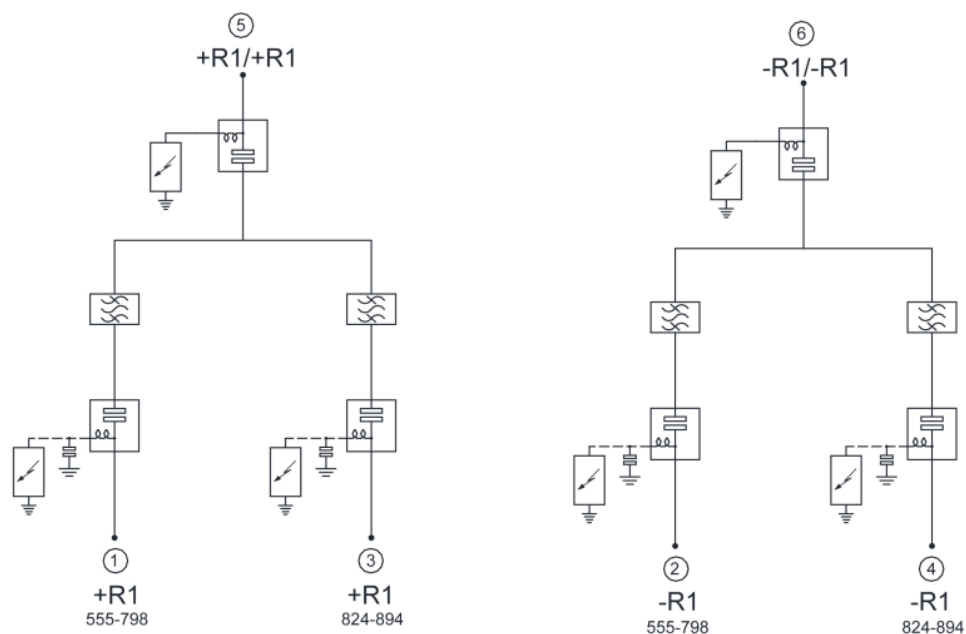
### TECHNICAL SPECIFICATIONS

| PORT NAME                                                               | 600-700                                                                                                                                                   | 850                          |
|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| Passband                                                                | 555 - 798MHz                                                                                                                                              | 824 - 894MHz                 |
| Insertion loss                                                          | 0.15dB typical                                                                                                                                            | 0.2dB typical                |
| Return loss                                                             | 23dB typical                                                                                                                                              |                              |
| EVM                                                                     | ≤0.5% across any 10MHz                                                                                                                                    | ≤0.5% across any 20MHz       |
| Group delay variation                                                   | 7.5ns typical over any 10MHz                                                                                                                              | 10ns typical over any 20MHz  |
| Absolute group delay                                                    | 7.5ns typical                                                                                                                                             | 17.5ns typical               |
| Maximum input power                                                     | 120W (average) / 1200W (PEP)                                                                                                                              | 120W (average) / 1200W (PEP) |
| Phase linearity over any 10MHz                                          | 2° typical, 10 °maximum                                                                                                                                   |                              |
| ELECTRICAL                                                              |                                                                                                                                                           |                              |
| Impedance                                                               | 50Ohms                                                                                                                                                    |                              |
| Intermodulation products                                                | -156dBc maximum with 2 x 20W carriers                                                                                                                     |                              |
| Isolation                                                               | 50dB typical                                                                                                                                              |                              |
| 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                                                                | 3000m/10,000ft maximum                                                                                                                                    |                              |
| Lightning protection                                                    | RF: ±5kA maximum (8/20us), IEC61312-1                                                                                                                     |                              |
| MTBF                                                                    | >1,000,000 hours                                                                                                                                          |                              |
| MECHANICAL                                                              |                                                                                                                                                           |                              |
| Dimensions H x D x W (single twin unit)                                 | 172 x 267 x 89 mm   6.77 x 10.51 x 3.50 in maximum                                                                                                        |                              |
| Dimensions H x D x W (dual twin unit)                                   | 172 x 267 x183 mm   6.77 x 10.51 x 7.20 in maximum                                                                                                        |                              |
| Weight                                                                  | 5.5kg / 12lbs (single twin)<br>10.9kg / 24lbs (dual twin)                                                                                                 |                              |
| Finish                                                                  | Painted, light grey (RAL7035)                                                                                                                             |                              |
| Connectors                                                              | 4.3-10 (F) x 6 long neck (single twin)<br>4.3-10 (F) x 12 long neck (dual twin)                                                                           |                              |
| Wind Load                                                               | Front 55N, Side 304N (single twin)<br>Front 140N, Side 339N (dual twin)<br>At 74m/s (AS/NZS 1170-2-2011 Structural design - Wind actions - Cyclone areas) |                              |
| Mounting                                                                | Pole/wall bracket supplied with two metal clamps for 45-178 mm diameter poles                                                                             |                              |

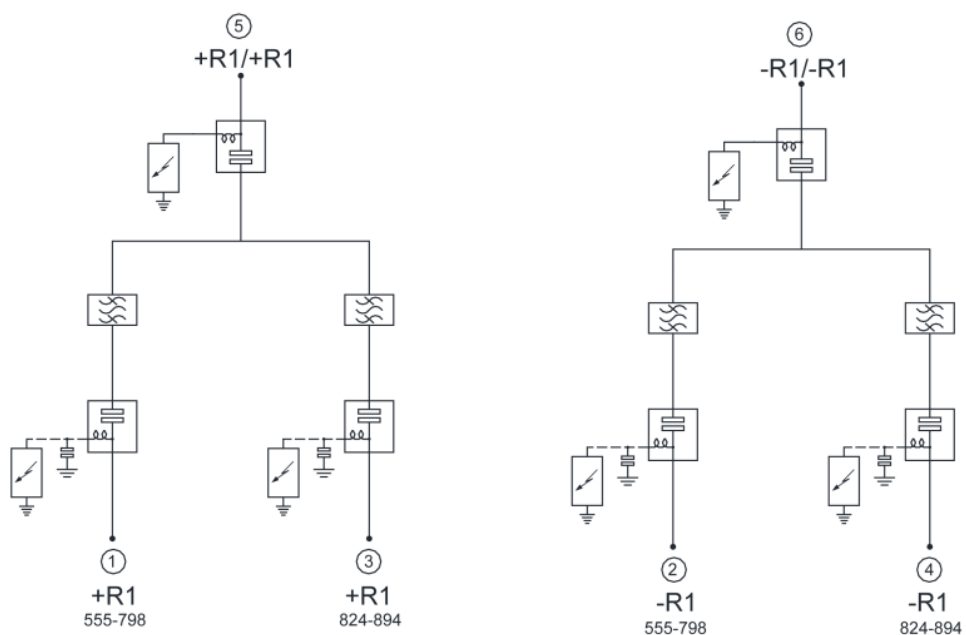
## ORDERING INFORMATION

| PART NUMBER    | CONFIGURATION       | OPTIONAL FEATURES | CONNECTORS | DC/AISG CONFIGURATION |
|----------------|---------------------|-------------------|------------|-----------------------|
| DBC0108F1V10-1 | SINGLE 1 in / 2 out | FIXED DC          | 4.3-10 (F) | NO DC                 |
| DBCT108F1V10-1 | TWIN 2 in / 4 out   | FIXED DC          | 4.3-10 (F) | NO DC                 |
| DBCT108F1V10-2 | QUAD 4 in / 8 out   | FIXED DC          | 4.3-10 (F) | NO DC                 |

## ELECTRICAL BLOCK DIAGRAM



TWIN ELECTRICAL DIAGRAM



TWIN ELECTRICAL DIAGRAM

# MECHANICAL BLOCK DIAGRAM

