

# UHF Constance Impedance Combiner

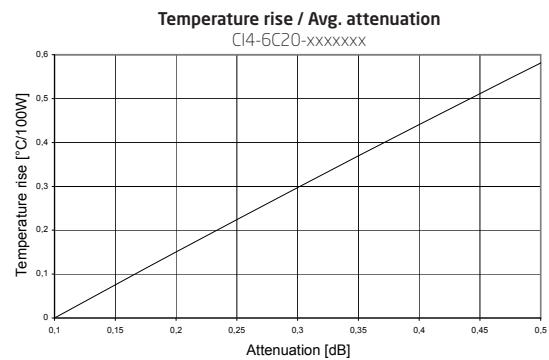
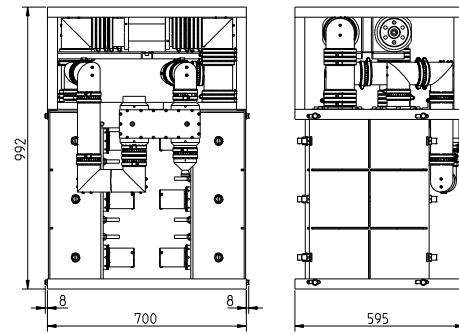
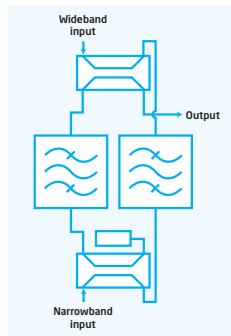
8.6 kW rms, 6 Pole

BAND IV-V



| SPECIFICATIONS               | 200 mm Series                                 |
|------------------------------|---|
| FREQUENCY                    | 470 - 862 MHz                                 |
| BANDWIDTH                    | 6 - 8 MHz                                     |
| STANDARD ORDER               | 6 Poles single cross coupling                 |
| OPTIONAL ORDER               | 6 Poles with or without double cross coupling |
| APPLICATION                  | Adjacent Ch combining                         |
| ATV                          | Spurious suppress                             |
| DVB                          | Non critical mask                             |
| ATSC                         | Stringent mask                                |
| ISDB                         | Non critical mask                             |
| IMPEDANCE                    | 50 Ohm  |
| NB RETURN LOSS (VSWR)        | >26 dB (<1.11)                                |
| WB RETURN LOSS (VSWR)        | >30 dB (<1.07), 2 specified channels          |
| MAX OUTPUT POWER RATING      | 36 kW rms                                     |
| NB INPUT CONNECTOR           | 3 1/8" unflange                               |
| WB STANDARD INPUT CONNECTOR  | NAX120  |
| WB OPTIONAL INPUT CONNECTORS | 3 1/8" unflange, RL98 unflange                |
| STANDARD OUTPUT CONNECTOR    | NAX120  |
| OPTIONAL OUTPUT CONNECTORS   | 3 1/8" unflange, RL98 unflange                |
| TEMPERATURE STABILITY        | < 2 kHz / °C                                  |
| MAX PRODUCT TEMPERATURE      | 70 °C   |
| ENVIRONMENTAL CONDITION      | -5 to 70 °C IP40                              |

| DIMENSIONS AND WEIGHT |                       |
|-----------------------|-----------------------|
| DIMENSIONS            | 716 x 595 x 992 mm    |
| L x W x H             | (28.2 x 23.4 x 39 in) |
| WEIGHT                | 115 kg (253.5 lb)     |
| STANDARD FRAME        | Stand alone           |
| COLOUR                | Black and aluminium   |



## ARTICLE: CI4-6C20-1PCE322

- CI** = Combiner Type
- 4** = Frequency band
- 6** = Number of poles
- C** = Cavity based
- 20** = Cavity size
- 1** = Number of cross coupling
- P** = Coating
- C** = Narrowband coupler
- E** = Wideband coupler
- 3** = Narrowband connection
- 2** = Wideband connection
- 2** = Output connection

| TYPICAL DATA*               | 8 MHz DVB-T   | 6 MHz ISDB-T   | 6 MHz ATSC  |
|-----------------------------|---|--|---|
| ARTICLE NO                  | CI4-6C20-1PCE322  | CI4-6C20-1PCE322   | CI4-6C20-1PCE322  |
| <b>NB INSERTION LOSS</b>    |   |  |   |
| Avg. signal bandwidth       | <0.41 dB  | <0.51 dB   | <0.49 dB  |
| Centre frequency            | <0.34 dB  | <0.44 dB   | <0.45 dB  |
| Signal band edge            | ± 3.8 MHz <0.85 dB<br>± 4.2 MHz >5.10 dB<br>± 6.0 MHz >16.10 dB<br>± 12.0 MHz >41.10 dB | ± 2.79 MHz <0.73 dB<br>± 3.15 MHz >1.10 dB<br>± 4.5 MHz >17.10 dB<br>± 9.0 MHz >47.10 dB | ± 2.69 MHz <0.59 dB<br>± 3.5 MHz >1.40 dB<br>± 6.0 MHz >29.10 dB<br>± 9.0 MHz >63.10 dB |
| <b>WB INSERTION LOSS</b>    |   |  |   |
|                             | ± 24 MHz <0.10 dB<br>± 16 MHz <0.10 dB<br>± 8.0 MHz <0.20 dB                            | ± 18 MHz <0.10 dB<br>± 12 MHz <0.10 dB<br>± 6 MHz <0.20 dB                               | ± 18 MHz <0.10 dB<br>± 12 MHz <0.10 dB<br>± 6 MHz <0.20 dB                              |
| <b>ISOLATION</b>            |   |  |   |
| NARROWBAND - WIDEBAND       | >36 dB  | >36 dB   | >36 dB  |
| WIDEBAND - NARROWBAND @     | ± 4.2 MHz >36 dB<br>± 8.0 MHz >60 dB<br>± 16 MHz >85 dB<br>± 24 MHz >95 dB              | ± 3.21 MHz >36 dB<br>± 6 MHz >65 dB<br>± 12 MHz >85 dB<br>± 18 MHz >100 dB               | ± 3.31 MHz >36 dB<br>± 6 MHz >75 dB<br>± 12 MHz >95 dB<br>± 18 MHz >110 dB              |
| NB GROUP DELAY VARIATION    | <260 ns   | <155 ns  | <75 ns  |
| NB MAX INPUT POWER RATING** | 8.6 kW / 13 dB (crest factor)   | 6.6 kW / 13 dB (crest factor)  | 6.8 kW / 11 dB (crest factor)   |
| TEMPERATURE RISE            | <0.5 °C / 100 W   | <0.6 °C / 100 W  | <0.6 °C / 100 W   |
| MASK COMPLIANT              | Non critical mask   | Non critical mask  | Stringent mask  |

\* Data in table is typical data at 656 MHz. To fulfil mask transmitter shoulder level must be >36 dB. The combiner can be tuned for other specifications or bandwidth. Please contact us for a designed specification.  
\*\* Max power rating at <50 °C temprice at max frequency.