

# Section 9 Filters and Multicoupling





### FM star combiners

**Dual, Tri, Quad & Penta configurations** >1.5 MHz channel spacing



The below models of combiners allow for multiple inputs from a transmitter to be combined into one antenna.

The below models of dual-combiners are:

- Suitable for low to medium power FM radio broacasting
- Available in multiple configurations of input/output connectors
- High quality construction for a long, realiable service life
- Version with 2.5 MHz channel spacing available



FDT-403 model for 19" rack mounting

| SKU                         | FDT-403S*   | FDT-2000S                         | FDT-2000S-H                       | FDT-4000S                         | FDT-6000S                         | FDT-10000S                        |  |
|-----------------------------|---|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|--|
| Construction                | Surtec 650 passivated finish aluminium, silver plated copper internals and PTFE                         |                                   |                                   |                                   |                                   |                                   |  |
| Frequency range             | 87.5-108 MHz - FM Radio   |                                   |                                   |                                   |                                   |                                   |  |
| Bandwidth - 3dB<br>specify  | 200 kHz 300 kHz 300-600 kHz   |                                   |                                   |                                   |                                   |                                   |  |
| VSWR                        | <1.15:1   |                                   |                                   |                                   |                                   |                                   |  |
| Min. space between channels | >1.5 MHz  |                                   |                                   |                                   |                                   |                                   |  |
| Impedance                   | 50 Ohms   |                                   |                                   |                                   |                                   |                                   |  |
| Thru loss                   | <0.8dB  | <0.6dB                            |                                   | <0.5dB                            |                                   |                                   |  |
| Isolation between channels  | 35dB typical  |                                   |                                   |                                   |                                   |                                   |  |
| Working temperature         | +10° to +40°C   |                                   |                                   |                                   |                                   |                                   |  |
| Input connector             | 2 x N-type female   |                                   | 2 x 7/16" DIN female              |                                   | 2 x 7/8" EIA                      |                                   |  |
| Output connector            | N-type female   | 7/16" DIN female                  | 7/8″EIA                           |                                   | 1-5,                              | 1-5/8" EIA                        |  |
| Maximum power - input       | 2 x 200 Watts   | 2 x 800 Watts                     | 2 x 1.2 Kilowatts                 | 2 x 2 Kilowatts                   | 2 x 3 Kilowatts                   | 2 x 5 Kilowatts                   |  |
| Weight                      | 31.0kg  | 32.0kg                            | 34.0kg                            | 52.0kg                            | 60.0kg                            | 90.0kg                            |  |
| Dimensions                  | H: 800mm<br>W: 490mm<br>D: 260mm  | H: 1300mm<br>W: 410mm<br>D: 400mm | H: 1300mm<br>W: 410mm<br>D: 400mm | H: 1300mm<br>W: 600mm<br>D: 410mm | H: 1300mm<br>W: 600mm<br>D: 410mm | H: 1300mm<br>W: 730mm<br>D: 700mm |  |
| Warranty                    | 2 Year warranty on manufacturing defects, 1 Year warranty on termination/connections from purchase date |                                   |                                   |                                   |                                   |                                   |  |

<sup>\*</sup> The FDT-403S is suitable for a 19" (inch) 9U rack mounting





# Section 9 Filters and Multicoupling





### FM star combiners

**Dual, Tri, Quad & Penta configurations** >1.5 MHz channel spacing



#### The below models of tri-combiners are:

- Suitable for low to medium power FM radio broacasting
- Available in multiple configurations of input/output connectors
- High quality construction for a long, realiable service life
- Version with 2.5 MHz channel spacing available



FTT-7500S model

| SKU                         | FTT-603S*   | FTT-3000S                         | FTT-3000S-H                       | FTT-7500S                         |  |
|-----------------------------|---|-----------------------------------|-----------------------------------|-----------------------------------|--|
| Construction                | Surtec 650 passivated finish aluminium, silver plated copper internals and PTFE                         |                                   |                                   |                                   |  |
| Frequency range             | 87.5-108 MHz - FM Radio   |                                   |                                   |                                   |  |
| Bandwidth - 3dB<br>specify  | 300-600 kHz   |                                   |                                   |                                   |  |
| VSWR                        | <1.15:1   |                                   |                                   |                                   |  |
| Min. space between channels | >1.5 MHz  |                                   |                                   |                                   |  |
| Impedance                   | 50 Ohms   |                                   |                                   |                                   |  |
| Thru loss                   | <0.8dB <  |                                   | <0.6dB                            | <0.5dB                            |  |
| Isolation between channels  | 35dB typical  |                                   |                                   |                                   |  |
| Working<br>temperature      | +10° to +40°C   |                                   |                                   |                                   |  |
| Input connector             | 3 x N-type female   |                                   | 3 x 7/16" DIN female              | 3 x 7/8" EIA                      |  |
| Output connector            | 7/16" DIN female  |                                   | 1-5/8″EIA                         |                                   |  |
| Maximum power - input       | 3 x 200 Watts   | 3 x 500 Watts                     | 3 x 1 Kilowatts                   | 3 x 2.5 Kilowatts                 |  |
| Weight                      | 36.0kg  | 60.0kg                            | 61.0kg                            | 81.0kg                            |  |
| Dimensions                  | H: 800mm<br>W: 490mm<br>D: 390mm  | H: 1300mm<br>W: 620mm<br>D: 400mm | H: 1300mm<br>W: 620mm<br>D: 400mm | H: 1300mm<br>W: 620mm<br>D: 600mm |  |
| Warranty                    | 2 Year warranty on manufacturing defects, 1 Year warranty on termination/connections from purchase date |                                   |                                   |                                   |  |

<sup>\*</sup> The FTT-603S is suitable for a 19" (inch) 12U rack mounting



# Section 9 Filters and Multicoupling





### FM star combiners

**Dual, Tri, Quad & Penta configurations** >1.5 MHz channel spacing



#### The below models of quad-combiners are:

- Suitable for low to medium power FM radio broacasting
- Available in multiple configurations of input/output connectors
- High quality construction for a long, realiable service life
- Version with 2.5MHz channel spacing available



FOT-4000S model

| SKU                            | FQT-4000S   | FQT-4000S-H                       | FQT-8000S                          |  |  |
|--------------------------------|---|-----------------------------------|------------------------------------|--|--|
| Construction                   | Surtec 650 passivated finish aluminium, silver plated copper internals and PTFE                         |                                   |                                    |  |  |
| Frequency range                | 87.5-108 MHz - FM Radio   |                                   |                                    |  |  |
| Bandwidth - 3dB<br>specify     | 300-600 kHz   |                                   |                                    |  |  |
| VSWR                           | <1.15:1   |                                   |                                    |  |  |
| Min. space<br>between channels | >1.5 MHz  |                                   |                                    |  |  |
| Impedance                      | 50 Ohms   |                                   |                                    |  |  |
| Thru loss                      | <0  | <0.5dB                            |                                    |  |  |
| Isolation between channels     | 35dB typical  |                                   |                                    |  |  |
| Working temperature            | +10° to +40°C   |                                   |                                    |  |  |
| Input connector                | 4 x N-type female   | 4 x 7/16" DIN female              | 4 x 7/8" EIA                       |  |  |
| Output connector               | 7/8″EIA 1-5/8″EIA   |                                   |                                    |  |  |
| Maximum power - input          | 4 x 500 Watts   | 4 x 1 Kilowatts                   | 4 x 2 Kilowatts                    |  |  |
| Weight                         | 74.0kg  | 75.0kg                            | 118.0kg                            |  |  |
| Dimensions                     | H: 1300mm<br>W: 900mm<br>D: 420mm   | H: 1300mm<br>W: 900mm<br>D: 420mm | H: 1300mm<br>W: 1300mm<br>D: 420mm |  |  |
| Warranty                       | 2 Year warranty on manufacturing defects, 1 Year warranty on termination/connections from purchase date |                                   |                                    |  |  |



## Section 9 Filters and Multicoupling





### FM star combiners

Dual, Tri, Quad & Penta configurations >1.5 MHz channel spacing



The below model, Pentaplexer combiner is:

- Suitable for low to medium power FM radio broacasting
- High quality construction for a long, realiable service life

| SKU                         | FPT-2500S   |  |  |
|-----------------------------|---|--|--|
| Construction                | Surtec 650 passivated finish aluminium, silver plated copper internals and PTFE                         |  |  |
| Frequency range             | 87.5-108 MHz - FM Radio   |  |  |
| Bandwidth - 3dB<br>specify  | 300-600 kHz   |  |  |
| VSWR                        | <1.15:1   |  |  |
| Min. space between channels | >1.6 MHz  |  |  |
| Impedance                   | 50 Ohms   |  |  |
| Thru loss                   | <0.6dB  |  |  |
| Isolation between channels  | >28dB - typical   |  |  |
| Working temperature         | +10° to +45°C   |  |  |
| Input connector             | 5 x N-type female   |  |  |
| Output connector            | 7/8″EIA   |  |  |
| Maximum power - input       | 5 x 500 Watts   |  |  |
| Weight                      | 80.0kg  |  |  |
| Dimensions                  | H: 815mm<br>W: 608mm<br>D: 1250mm   |  |  |
| Warranty                    | 2 Year warranty on manufacturing defects, 1 Year warranty on termination/connections from purchase date |  |  |





