



# L-band Impedance Transformer



TRFL1-4600 is an L-band passive impedance transformer with DC and 10MHz pass on both ports.

This component is available with the following RF connector options: 50 Ω SMA, N-type, BNC and 75 Ω BNC or F-type.

Summary table for RF performance over L-band operation, 850 MHz to 2150 MHz

| Model Numbers   | 50Ω Port |                  |     | 75Ω Port |                  |     | Insertion Loss (dB) |     |
|-----------------|----------|------------------|-----|----------|------------------|-----|---------------------|-----|
|                 | Type     | Return Loss (dB) |     | Type     | Return Loss (dB) |     | Typ.                | Max |
|                 |          | Typ              | Min |          | Typ              | Min |                     |     |
| TRFL1-4600-S5B7 | SMA      | 20               | 15  | BNC      | 18               | 12  | 0.4                 | 0.7 |
| TRFL1-4600-S5F7 | SMA      | 20               | 15  | F-type   | 16               | 12  | 0.5                 | 0.8 |
| TRFL1-4600-N5B7 | N-type   | 20               | 15  | BNC      | 18               | 14  | 0.4                 | 0.7 |
| TRFL1-4600-N5F7 | N-type   | 20               | 15  | F-type   | 16               | 12  | 0.5                 | 0.8 |
| TRFL1-4600-B5B7 | BNC      | 18               | 14  | BNC      | 18               | 14  | 0.4                 | 0.7 |
| TRFL1-4600-B5F7 | BNC      | 18               | 14  | F-type   | 16               | 12  | 0.5                 | 0.8 |
| TRFL1-4600-B5B8 | BNC      | 15               | 8   | BNC      | 15               | 8   | 0.7                 | 1.2 |

Maximum acceptable operating parameters for reliable and safe operation

| Parameter             | Value          | Comment              |
|-----------------------|----------------|----------------------|
| Input RF power        | +37 dBm (5W)   | Max total RF power   |
| DC Voltage            | 50V            | Any RF port          |
| DC Current            | 3.5A max       |                      |
| Operating temperature | 0 to 45°C      | Indoor use only      |
| Storage Temperature   | -20°C to +75°C |                      |
| Humidity              | 85%            | Non-condensing       |
| Altitude              | 10,000 feet    | Above Mean Sea Level |

**!** Operation beyond these limits may cause instantaneous and permanent damage.



RESILIENCE



RELIABILITY

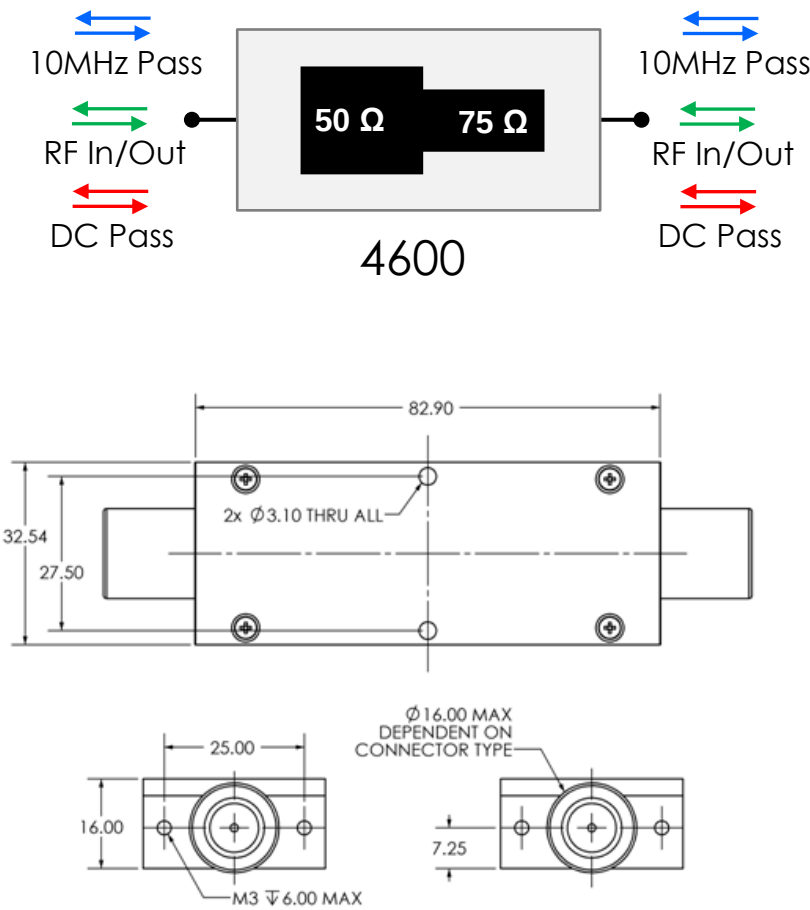


RF PERFORMANCE



CUSTOM BUILD

Vector diagram & physical dimensions



ETL's range of Impedance Transformers

| Model Number | DC block/pass        | 10MHz block/pass | Other features                                 |
|--------------|----------------------|------------------|------------------------------------------------|
| TRFL1-4600   | DC pass              | 10MHz pass       |                                                |
| TRFL1-4601   | DC block             | 10MHz block      |                                                |
| TRFL1-4602   | DC block             | 10MHz pass       |                                                |
| TRFL1-4606   | DC block on 50Ω port |                  | DC injection onto 75Ω port                     |
| TRFL1-4607   | DC block on 75Ω port |                  | DC injection onto 50Ω port                     |
| TRFB4-4603   | DC pass              | 10MHz pass       | Extended frequency range: 500-2500MHz (S-band) |
| TRFB4-4604   | DC block             | 10MHz block      | Extended frequency range: 500-2500MHz (S-band) |
| TRFB4-4605   | DC block             | 10MHz pass       | Extended frequency range: 500-2500MHz (S-band) |



ETL Systems Ltd, Coldwell Radio Station, Madley, Hereford, HR2 9NE, England

ETL Systems design, develop and manufacture specialist equipment for satellite ground stations. For a full description of the ETL product range, please see our website at [www.etlsystems.com](http://www.etlsystems.com). This product range provides the basis for meeting your specific demands.



Tel +44 (0)1981 259020  
Fax +44 (0)1981 259021  
[info@etlsystems.com](mailto:info@etlsystems.com)