

## T445

### S-band Test Loop Translator

#### Input Specification

- |                                 |   |
|---------------------------------|---|
| 1. Frequency range:             | 1,760 to 1,840MHz and 2,015 to 2,120 <sup>(1)</sup> |
| 2. Connector:                   | N-type  |
| 3. Impedance:                   | 50Ω   |
| 4. Return loss:                 | >16dB   |
| 5. Input 1dB compression point: | 0dBm  |

#### Output specification

- |                     |                   |
|---------------------|-------------------|
| 6. Frequency range: | 2,200 to 2,300MHz |
| 7. Connector:       | N-type            |
| 8. Impedance:       | 50Ω               |
| 9. Return loss:     | ≥16dB             |

#### Transfer characteristics

- |   |  |
|---|--|
| 10. Gain:   | 0 to -30dB   |
| 11. Gain adjustment:                              | ±15dB in 0.1dB steps      adjustable from front panel<br>and remote interface                            |
| 12. Gain ripple, over each input band segment:    | <2dB p.t.p.  |
| 13. Frequency translation:                        | Dual translation with internal IF at 3GHz (aprox).<br>100kHz step size                                   |
| 14. LO stability:                                 | 2 x 10 <sup>-7</sup> from 0°C to 50°C<br>Ageing: 10 <sup>-6</sup> per year<br>Higher stability optional. |
| 15. Phase noise:                                  |  |
| 10Hz  | -40dBc/Hz  |
| 100Hz   | -70dBc/Hz  |
| 1kHz  | -80dBc/Hz  |
| 10kHz   | -83dBc/Hz  |
| 100kHz  | -95dBc/Hz  |
| 1MHz  | -110dBc/Hz   |
| Mains related                                     | -50dBc   |
| 16. External reference:                           | 10MHz, 0dBm, optionally 5MHz, 0dBm   |
| 17. In-band spuri at -10dBm output and full gain: | <-50dBc  |
| 18. Out of band spuri at full gain:               | <-40dBm  |
| 19. Image and IF rejection:                       | >40dB  |
| 20. Output muting, at full gain:                  | >40dB  |

#### Miscellaneous

- |                                  |   |
|----------------------------------|---|
| 21. Power supply:                | 115V/230V ±10%<br>50/60Hz ±10%, 30VA  |
| 22. Mechanical:                  | 1U 19" frame, 400mm deep  |
| 23. Temperature:                 | Operating: 0° to 50°C<br>Storage: -40° to 85°C  |
| 24. Relative humidity:           | Operating: 0 to 90%<br>Storage: 0 to 95%  |
| 25. Summary alarm:               | NO and NC dry relay contacts via rear<br>mounted connector  |
| 26. Summary alarm indication:    | Through front panel LED   |
| 27. Remote Monitoring & Control: | RS232/RS485 serial interface<br>Control: Gain and frequency translation<br>Monitor: Gain, frequency translation<br>and alarm status |

NOTES: (1) Performance parameters not tested or certified for the range 1,840 to 2,015MHz.