

D550 Series C-band Downconverters

| INPUT SPECIFICATION | | Options |
|--------------------------|------------------------------------|--|
| 1. | Frequency range: | 3.4 to 4.8GHz (check model table) |
| 2. | Connector: | N-type SMA |
| 3. | Impedance: | 50Ω |
| 4. | Return loss: | ≥18dB |
| OUTPUT SPECIFICATION | | |
| 5. | Frequency range: | 70 ± 20MHz or 140 ± 40MHz (check model table) |
| 6. | Connector: | BNC |
| 7. | Impedance: | 50Ω 75Ω |
| 8. | Return loss: | ≥15dB |
| 9. | 1dB compression point: | +10dBm |
| 10. | Third order intercept:: | +20dBm |
| TRANSFER CHARACTERISTICS | | |
| 11. | Gain: | 30 to 50dB, adjustable in 0.1dB steps |
| 12. | Gain ripple: over ±20MHz: | ≤1dB p.t.p. |
| | over ±40MHz: | ≤1.5dB p.t.p. |
| | over input band: | ≤3dB p.t.p |
| 13. | Group delay distortion: over ±5MHz | <2ns |
| | over ±20MHz | <5ns |
| 14. | Gain stability, 0°C to 50°C: | ±1dB |
| 15. | Frequency stability, 0°C to 50°C: | 0°C to +50°C: < 3 x 10 ⁻⁸ |
| | | At constant temperature over 24 hr: < 5 x 10 ⁻⁹ |
| | | Aging per year: < 5 x 10 ⁻⁷ |
| 16. | External reference: | 10MHz, 0dBm 5MHz, 0dBm |
| 17. | Synthesiser step size: | 1kHz |
| 18. | Noise figure (full gain): | <17dB |
| Spurii | | |
| 19. | Image rejection: | ≥50dB |
| 20. | In-band spurii (at 0dBm output): | <-60dBc |
| PHASE NOISE | | |
| 21. | 10Hz: | <-45dBc/Hz |
| 22. | 100Hz: | <-70dBc/Hz |
| 23. | 1kHz: | <-80dBc/Hz |
| 24. | 10kHz: | <-85dBc/Hz |
| 25. | 100kHz: | <-95dBc/Hz |
| 26. | 1MHz: | <-110dBc/Hz |
| 27. | Mains related: | <-50dBc |
| MISCELLANEOUS | | |
| 28. | Power supply: | 115V/230V ±10% 50/60Hz ±10%, 45VA |
| 29. | Mechanical: | 1U 19" frame, 400mm deep |
| 30. | Temperature: | Operating: 0° to 50°C |
| | | Storage: -40° to 85°C |
| 31. | Relative humidity: | Operating: 0 to 90% |
| | | Storage: 0 to 95% |
| 32. | Summary alarm: | NO and NC dry relay contacts via rear mounted connector |
| 33. | Summary alarm indication: | Front panel LED |
| 34. | Remote control: | • RS232 or RS422/RS485, connector D-type 9P F |
| | | • Serial emulation over TCP/IP, connector RJ45 |
| | | • SNMP and HTTP over TCP/IP Ethernet, connector RJ45 |

MODEL TABLE

| Input Frequency | Output frequency and bandwidth | | |
|------------------------|--------------------------------|-------------|----------------------------|
| | 70 ± 20MHz | 140 ± 40MHz | 70 ± 20MHz, 140 ± 40MHz |
| 3.625 - 4.2 | D550 | D555 | D570 |
| 3.4 - 4.2 | D551 | D556 | D571 |
| 4.5 - 4.8 | D552 | D557 | D572 |
| 3.4 - 4.2 4.5 - 4.8 | D553 | D558 | D573 |
| 3.4 - 4.8 | D554 | D559 | D574 |
| 4.45 - 4.95 | D580 | D585 | D587 |