

## U550 Series C-band Upconverters

INPUT SPECIFICATION	Options
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|---------------------|---|
| 1. Frequency range: | 70 ± 20MHz or 140 ± 40MHz (check model table) |
| 2. Connector:       | BNC   |
| 3. Impedance:       | 50Ω   |
| 4. Return loss:     | ≥15dB   |

OUTPUT SPECIFICATION	SMA
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|-----------------------------|--|--|-----|
| 5. Frequency range:         | 5.725 to 6.725GHz (check model table)      |  |     |
| 6. Connector:               | N-type                                     |  | SMA |
| 7. Impedance:               | 50Ω  |  |     |
| 8. Return loss:             | ≥15dB                                      |  |     |
| 9. 1dB compression point:   | +10dBm                                     |  |     |
| 10. Third order intercept:: | +20dBm                                     |  |     |
| 11. Output mute:            | Front panel, parallel and serial interface |  |     |
|                             | >90dB at max gain, >60dB at min gain       |  |     |

TRANSFER CHARACTERISTICS
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|--|--------------------------------------|------------|------------------|
| 12. Gain:                              | 0 to 30dB, adjustable in 0.1dB steps |            |                  |
| 13. Gain ripple: over ±20MHz:          | ≤1dB p.t.p.                          |            |                  |
|  | over output band:                    | ≤3dB p.t.p |                  |
| 14. Group delay distortion: over ±5MHz | <2ns                                 |            |                  |
|  | over ±20MHz                          | <5ns       |                  |
| 15. Gain stability, 0°C to 50°C:       | ±1dB                                 |            |                  |
| 16. Frequency stability, 0°C to 50°C:  | 2 x 10 <sup>-7</sup>                 | Option 1:  | 10 <sup>-7</sup> |
|  |                                      | Option 2   | 10 <sup>-8</sup> |
| 17. External reference:                | 10MHz, 0dBm                          |            | 5MHz, 0dBm       |
| 18. Synthesiser step size:             | 1kHz                                 |            |                  |
| 19. Noise figure (full gain):          | <20dB                                |            |                  |

Spurii
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|--------------------------------------|---------|
| 20. Image rejection:                 | >55dB   |
| 21. In-band spurii (at 0dBm output): | <-55dBc |

PHASE NOISE
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|--------------------|-------------|
| 22. 10Hz:          | <-45dBc/Hz  |
| 23. 100Hz:         | <-70dBc/Hz  |
| 24. 1kHz:          | <-80dBc/Hz  |
| 25. 10kHz:         | <-85dBc/Hz  |
| 26. 100kHz:        | <-95dBc/Hz  |
| 27. 1MHz:          | <-110dBc/Hz |
| 28. Mains related: | <-60dBc     |

MISCELLANEOUS
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|-------------------------------|---|
| 29. Power supply:             | 115V/230V ±10%  |
|                               | 50/60Hz ±10%, 30VA  |
| 30. Mechanical:               | 1U 19" frame, 400mm deep  |
| 31. Temperature:              | Operating: 0° to 50°C   |
|                               | Storage: -40° to 85°C   |
| 32. Relative humidity:        | Operating: 0 to 90%   |
|                               | Storage: 0 to 95%   |
| 33. Summary alarm:            | NO and NC dry relay contacts via rear mounted connector   |
| 34. Summary alarm indication: | Front panel LED   |
| 35. Remote control:           | <ul style="list-style-type: none"> <li>• RS232 or RS422/RS485, connector D-type 9P F</li> <li>• Serial emulation over TCP/IP, connector RJ45</li> <li>• SNMP and HTTP over TCP/IP Ethernet, connector RJ45</li> </ul> |

(\* ) Noise figure increases by 3dB, overall gain decreases by 3dB.

### MODEL TABLE

Output Frequency	Input frequency and bandwidth		
	70 ± 20MHz	140 ± 40MHz	70 ± 20MHz, 140 ± 20MHz and ±40MHz
5.85 - 6.425GHz	U550	U555	U570
5.85 - 6.725GHz	U551	U556	U571
5.725 - 6.725GHz	U552	U557	U572