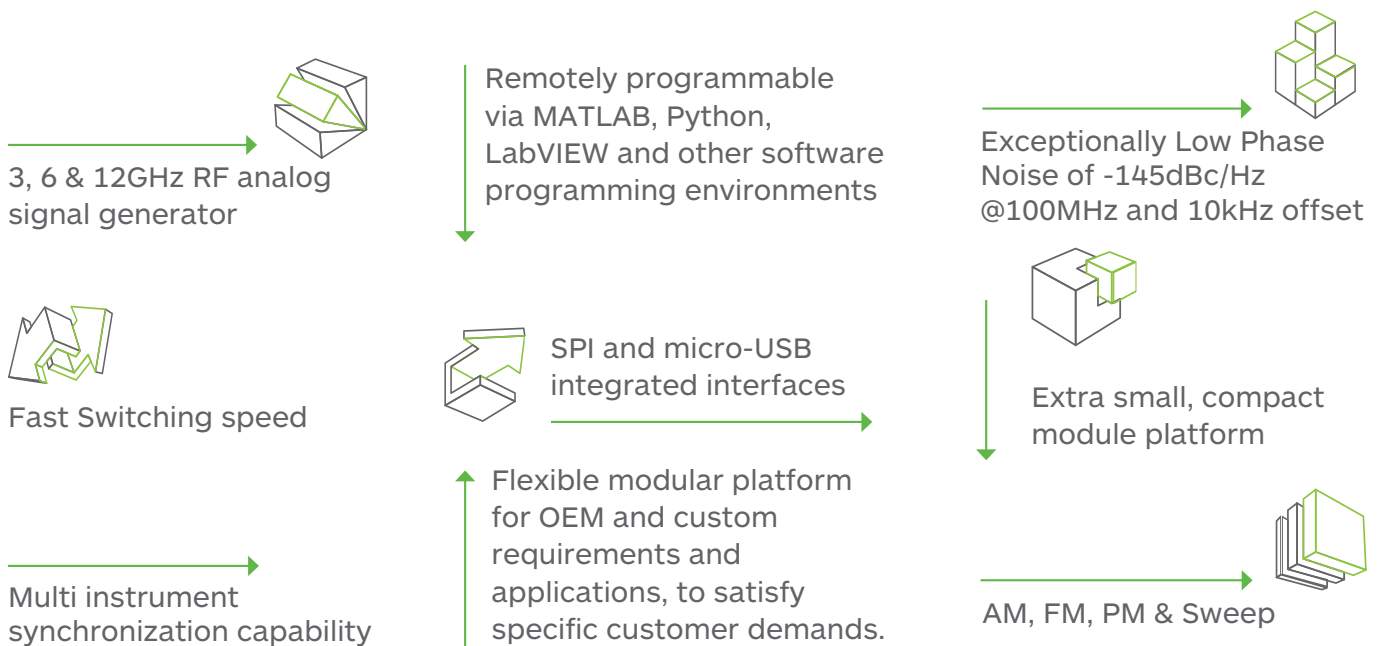


LS3081D/LS6081D/LS1291D-DST

3, 6 or 12 GHz RF Analog Signal Generator Desktop Modules



The all-new Lucid Series offers the most advanced features and industry leading performance in the most compact form factor. The series feature 3, 6 and 12 GHz single channel versions, all sharing the very same industry leading highlighted features, in a compact, small footprint module. Featuring fast switching speed, superior signal integrity and purity, all the necessary modulated signals for analog communication systems, with built in SPI and micro-USB interface, the Lucid Series is designed to meet today's most demanding specifications, needed from the R&D benches to the production lines.



Signal Integrity and Purity

One of the most important requirement in today's testing and measurement applications is high signal quality. With a typical SSB phase noise of -145dBc at 100MHz, and -132dBc at 1GHz, at 10 kHz carrier offset, Tabor's All-New Lucid Series platform delivers one of the best quality signals available on the market today, answering the ever-growing demand for clear and precise signals.

Fast Switching

In today's world, time is a crucial factor, whether in design, on the production floor or inside ATE systems. Tabor's All-New Lucid Series ensures maximum measurements at minimum time, setting the industry's highest throughput standard.

Modulation Schemes

Signal bursts and chirps have become common need in the daily life of any aerospace or defense application. With Tabor's All-New Lucid Series, any modulation is possible, no matter if its AM, FM, PM and Sweep.

Multiple Ways to Control the Unit

Tabor's Lucid Series comes with its own dedicated software to control the instrument functions, modes and features via a graphical user interface (GUI) as well as a complete set of drivers, allowing you to write your application in various environments including Labview, Python, CVI, C++, VB and MATLab. You may also link the supplied dll to other Windows-based API's or use low-level SCPI commands to program the instrument.

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Specifications

| FREQUENCY | |
|-------------------------|------------------|
| Range: | |
| LS3081D-DST: | 100 kHz to 3GHz |
| LS6081D-DST: | 100 kHz to 6GHz |
| LS1291D-DST: | 100 kHz to 12GHz |
| Resolution: | 0.001 Hz |
| Phase offset: | 0.01 deg |
| Switching speed: | 500µs |

| FREQUENCY REFERENCE | |
|-------------------------|---------------------|
| Temp. Stability: | ±100 ppb, |
| Aging: | ± 1.25 ppm over 10y |
| Warm up time: | 30 min |

| INTERNAL | |
|--------------------------|------------|
| Output Frequency: | 10/100 MHz |
| Output Wave | Sine |
| Output Power: | +5 ±2 dBm |
| Reference Mute: | -60 dBm |
| Locking Range: | ± 2.0 ppm |
| Output Impedance: | 50Ω |

| EXTERNAL | |
|--------------------------|----------------|
| Input Frequency: | 10 / 100 MHz |
| Input Power: | -5 to +10 dBm |
| Max. Input Level: | +15 dBm |
| Input Impedance: | 50Ω |
| Locking Range: | 20Hz |
| Wave shape: | Sine or Square |

| AMPLITUDE | |
|----------------------------|--------------------|
| Range: | +15 dBm to -20dBm |
| Resolution: | 0.01 dB |
| Power Mute: | -65dBm |
| Output Return Loss: | -10dBm |
| Switching speed: | 500µs |
| Accuracy (dB): | ±0.5 (up to 10dBm) |

| PHASE NOISE (dBc/Hz) | |
|-----------------------|---------------------|
| up to 1.5 GHz: | -136 typ (-132 max) |
| 1.5 to 3 GHz: | -130 typ (-125 max) |
| 3 to 6 GHz: | -124 typ (-120 max) |
| 6 to 12 GHz: | -118 typ (-114 max) |

| HARMONICS (dBc) | |
|----------------------|--------|
| up to 12 GHz: | -40dBc |

| NON HARMONICS (dBc) | |
|----------------------|--------|
| up to 12 GHz: | -60dBc |

| MODULATION | |
|---------------------------|----------------------------|
| COMMON CHARACTERISTICS | |
| Carrier Frequency: | Full scale |
| Modulation Source: | Internal |
| FREQUENCY MODULATION | |
| Modulation Rate: | 1 MHz |
| Resolution: | 0.1% or 1 Hz (the greater) |
| Maximum Deviation: | |
| 0.05*f: | (<1.5GHz) |
| 25MHz: | (1.25 to 2.5 GHz) |
| 50MHz: | (2.5 to 5GHz) |
| 100MHz: | (5 to 10GHz) |
| 200MHz: | (>10GHz) |

| AMPLITUDE MODULATION | |
|------------------------------|-------------------|
| Modulation rate: | DC to 100 kHz |
| AM Depth Linear: | +15 dBm |
| Max settable: | 90% |
| Resolution: | 0.1% of depth |
| Accuracy (1kHz): | < ± 4% of setting |
| AM Depth Exponential: | |
| Max. Settable: | 40 dB |
| Resolution: | 0.01 dB |
| Accuracy (1kHz): | < ± 4% of setting |

| PHASE MODULATION | |
|-------------------------|---------|
| Modulation Rate: | 1 MHz |
| Resolution: | TBD |
| Peak Deviation: | 300 rad |

| DIGITAL SWEEP MODE (FREQ. & AMP.) | |
|-----------------------------------|----------------------------------|
| Dwell time: | 10us to 1000s |
| Resolution: | 1us |
| Number of points: | 2 to 65535 |
| Step change: | Linear or logarithmic |
| Trigger: | Continuous, External, Bus, Timer |

| INPUTS | |
|-------------------------|-------------|
| TRIGGER INPUT | |
| Connector type: | MMCX |
| Input Impedance: | 50Ω or 10kΩ |
| Input voltage: | TTL, CMOS |
| Damage level: | ±5V |

| EXTERNAL REFERENCE INPUT | |
|--------------------------|----------------|
| Connector type: | SMA |
| Input Impedance: | 50Ω |
| Waveform: | Sine or Square |
| Frequency: | 10/100MHz |

| OUTPUTS | |
|-----------------------|-----|
| RF OUT | |
| Impedance | 50Ω |
| Connector type | SMA |
| REFERENCE OUT | |
| Impedance | 50Ω |
| Connector type | SMA |

| GENERAL | |
|----------------------------|----------------------------|
| Voltage: | +12.0 to +12.6 VDC |
| Supply Voltage: | +15 V DC |
| Power Consumption: | 24W max. (18W typ) |
| Interface: | MICRO-USB, SPI |
| Dimensions (WxHxD): | 12 x 16 x 2.5 cm |
| Weight: | |
| Without Package: | 1 Kg |
| Shipping Weight: | 1.5 Kg |
| Temperature: | |
| Operating: | 0°C to +40°C |
| Storage: | -40°C to +70°C |
| Warm up time: | 15 minutes |
| Humidity: | 85% , non-condensing |
| Safety: | CE Marked, IEC61010-1:2010 |
| EMC: | IEC 61326-1:2013 |
| Calibration: | 1 years |
| Warranty: | 1 year |

| ORDERING INFORMATION | |
|----------------------|---|
| MODEL | DESCRIPTION |
| LS3081D-DST | 3GHz RF Analog Signal Generator Desktop Module |
| LS6081D-DST | 6GHz RF Analog Signal Generator Desktop Module |
| LS1291D-DST | 12GHz RF Analog Signal Generator Desktop Module |