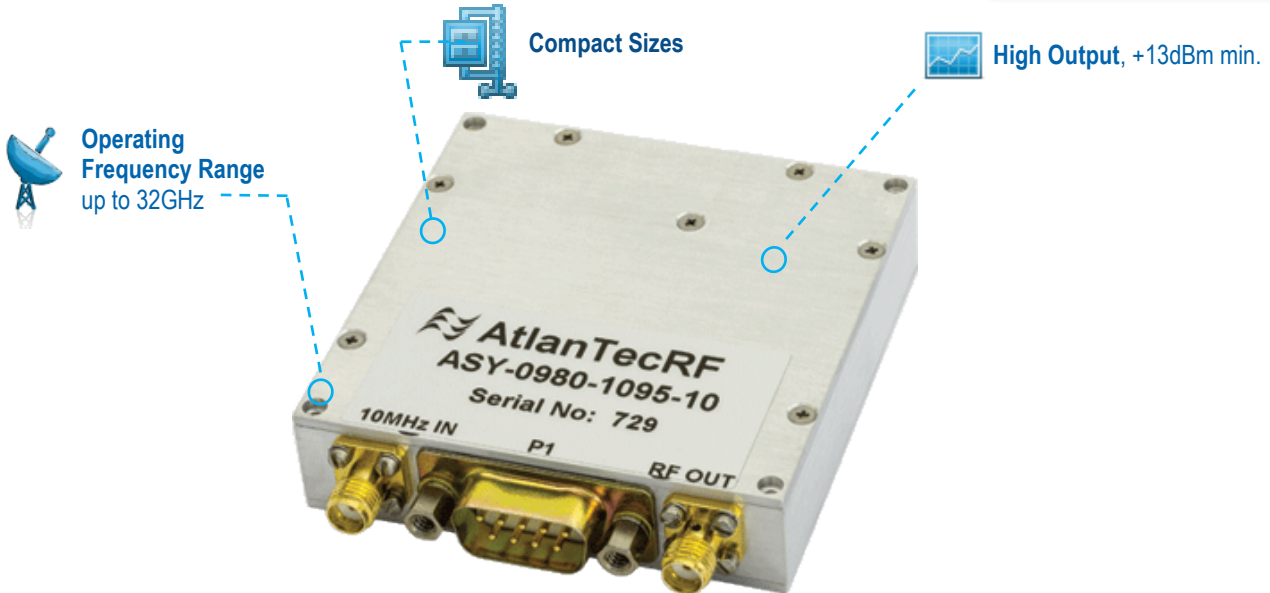


Atlantic Microwave Miniature Synthesizers

AYS Series

The ASY series are single phase-locked loop Frequency Synthesizers offering excellent performance combined with small size and a high degree of versatility for many applications in communications, radar and test instrumentation. These high performing units are ready to use with a minimum of set-up and provide high value solutions, often from stock.

- Frequencies up to 32GHz
- Frequency Steps 1KHz typical
- 10MHz External or Internal Reference
- Frequency Control Serial RS485 or Ethernet
- Good Phase Noise
- Compact Size
- Non Volatile Memory



| General Specifications | |
|--|--|
| Output Frequency | Up to 16GHz fundamental |
| Frequency Steps | 1KHz |
| Switching Speed | 5msec max. |
| External Reference | 10MHz typ. 0dBm +/-3dB |
| Frequency Stability & Accuracy (Ext. Ref.) | As Reference |
| Frequency Stability & Accuracy (Int. Ref.) | +/-0.5ppm (-10 to +70C) |
| Output Power | +13dBm min. |
| Output Power Variation (Freq. & Temp.) | 3dB max. |
| Harmonics | -20dBc typ. |
| Spurious | -60dBc max. |
| VSWR | 1.5:1 typ. |
| Operating Temperature | -5 to +65C |
| Storage Temperature | -40 to +85C |
| Input Voltage | +5.0 Vdc min to +5.5 Vdc max. |
| Input Current | 650mA max. |
| Lock Alarm | TTL High for Locked |
| Standard Frequency Control | Serial RS485 |
| Optional Frequency Control | mBed Ethernet Control Board with Virtual Control Panel |
| RF Connector | SMA Female or 2.92mm Female above 26GHz |
| Digital & DC connection | BD9 Male |
| Size | 2.50" x 2.50" x 0.63" 2.50" x 2.50" x 1.10" with multiplier |

| Phase Noise (dBc/Hz) (typical) | | | | | | | | |
|--------------------------------|------------------------|------|------|-----------|-------|-------|-------|-----------|
| Offset Frequency (Hz) | Output Frequency (GHz) | | | | | | | |
| | 0.8-2 | 1-2 | 4-8 | 8.8-13.05 | 10-15 | 12-18 | 17-19 | 26.5-29.5 |
| 100 | -80 | -80 | -75 | -70 | -65 | -60 | -60 | -60 |
| 1K | -95 | -90 | -85 | -80 | -80 | -75 | -75 | -75 |
| 10K | -100 | -100 | -95 | -85 | -85 | -80 | -80 | -80 |
| 100K | -105 | -110 | -90 | -85 | -85 | -80 | -80 | -80 |
| 1M | -140 | -135 | -120 | -110 | -115 | -110 | -110 | -110 |

Note 1: The specification is subject to regular reviews and will be updated from time to time as part of our continuing product development and improved spec accuracy.
Note 2: Operation beyond the quoted limits stated above may cause instantaneous and permanent damage.

