

# MODEL BY-1911S

## Clock Amplifier for Optical Driver @ 10.66 GHz TECHNICAL BULLETIN

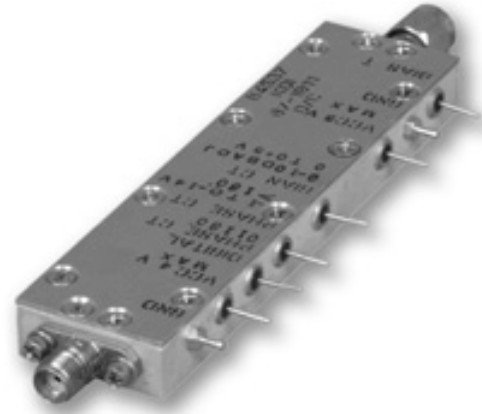
The Model BY-1911S is a sub-assembly, consisting of amplifiers, gain control, (2) phase shifters, and a clock bias and modulation input circuit.

The primary application is use as a driver input of a Lithium Niobate optical modulator.

The digital phase shifter has both a "coarse" bi-state function and a fine set continuously variable phase shift function. The bi-state range is 0/180 degrees, and the fine set continuous range is 0-180 degrees.

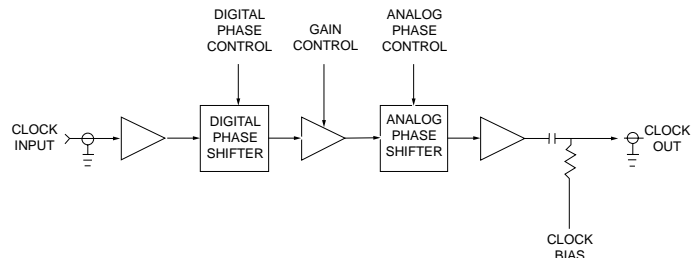
Three (3) stages of linear amplification are provided with 28dB gain, a 5dB noise figure, and output level of +25dBm.

The output monitor function consists of a bias Tee, used to set the DC operating point of the optical modulator.



### Specifications

Frequency:	10.664 GHz
Gain:	28 dB Min.
Noise figure:	5.0 dB
Input Power:	-6 dBm to 0 dBm
Output Power:1	25 dBm Min.
Input VSWR:	2:1 Max.
Output VSWR:	2:1 Max.
IP3:	+35 dBm
Bi-phase range:	0/180 degrees
Control input:	TTL
Fine set phase adjust range:	0-180 degrees Min
Control voltage:2	0 to-12 VDC Max.
Gain control range:	0-10 dB Min.
Input Bias Tee level range:	+/- 15 Volts
Control input 3 dB bandwidth:	45 KHz Min.
Control line linearity:	4+/- 10 %
Input supply:	5+15 VDC @ 775 mA
Operating temperature range:	0-70 Deg. C



### Notes

- 1 dB compression point with 0 dBm input
- Phase shift increases with increasing phase control level
- Gain increases with increasing gain control level
- Applies to the gain control line, analog phase control line, and the bias T.
- Other supply voltages can be supplied.