



Wideband Sine Wave Low Jitter Clock for 40 Gb/s Systems

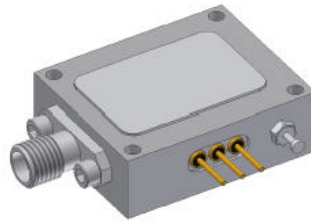
HSC-41415-08K

Features

- Frequency Range:
39.81GHz to 43.01GHz
- Output Power (50 Ω Load):
5 dBm Minimum
- Modulation Sensitivity:
200 to 400 MHz/V
- Tuning Voltage:
0 to 10 Volts
- Low Phase Noise:
< -85 dBc/Hz @100 KHz
- 1.18 L x 0.95 D x 0.5 H
(inches)

Applications

- Transmitter and Receiver Subsystems for OC-768 / STM-256 applications.
- 40 GHz Low Noise Source



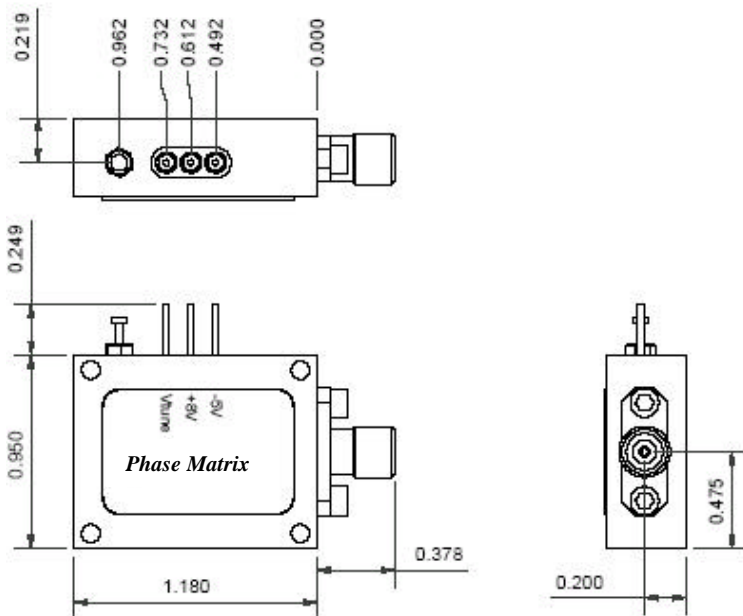
General Description

The HSC-41415-08K provides a low jitter single ended high speed clock source covering clock frequency range between 39813 MHz and 43018 MHz. This product is designed to use with SONET optical communication systems & Test Instruments for OC-768/STM-256 40Gb/s systems at commonly used FEC rates.

This low jitter source uses a high performance low noise Silicon Bipolar transistor in conjunction with a hyper-abrupt silicon varactor diode to realize a 10GHz voltage tuned oscillator with necessary tuning capability to compensate for any variations due to temperature, bias, load variations as well as aging. A GaAs FET buffer amplifier is used to achieve necessary power output and load isolation of the oscillator. A GaAs PHEMT frequency multiplier is used to generate 40GHz signal. Finally the signal is passed through a band-pass filter before coupling to the output port.

Frequencies other than the ones mentioned are available on request. Contact factory for differential output versions and different packaging options including bondable SMT package or GPPO connector based module.

Package Mechanical Dimensions (Inches)



HSC-41415-08K Absolute Maximum Ratings

Parameter	Units	Ratings
Positive & Negative Supply Voltages	V	+6V, -6V
Tuning Voltage	V	0 to 12 V
Operating Temperature	°C	-10 to 85
Storage Temperature	°C	-40 to +125

