

HITTITE LAUNCHES HMC-T2100 10 MHz TO 20 GHz SYNTHESIZED SIGNAL GENERATOR

Hittite Microwave has launched the HMC-T2100, a new, easy to integrate 10 MHz to 20 GHz synthesized signal generator which provides high output power, low harmonic levels and superior frequency coverage compared with any signal generator in its class.



HMC-T2100

Ideal for use in automated test and measurement environments, or research and development laboratories, the HMC-T2100 is a compact and lightweight frequency generator that delivers up to +27 dBm of CW output power in 0.1 dB steps over a 40 dB dynamic range. Harmonic rejection is better than -39 dBc at 1 GHz and spurious products are better than -65 dBc at 10 GHz. Phase noise is -113 dBc/Hz @ 100 kHz offset at 1 GHz with insignificant deviation over the temperature range of 0 to +35°C (Figure 1). The broad frequency range of 10 MHz to 20 GHz covers all major communication bands with frequency resolution of 10 kHz and fast switching speed of 300 us.

Built on a foundation of Hittite's high quality and market leading MMICs, this versatile signal generator features multiple interfaces (USB, GPIB* and Ethernet*) and innovative control software, ensuring carefree integration within multiple test environments. An installation disk that accompanies each unit includes all of the drivers required to remotely control the device as well as a user friendly LabWindows™ based GUI interface compatible with Windows XP® or Windows Vista® operating systems. User control is facilitated via pull-down menus that allow programming of single or swept modes in frequency and/or power. Integration of multiple units within a production test environment is easy and affordable. (Figure 2)

Hittite also offers an extensive line of connectorized modules, which can be combined with the HMC-T2100 to significantly extend its overall performance. The HMC-C019 is a high speed, high isolation GaAs MESFET SPST switch. Covering DC to 20 GHz, the switch features 100 dB isolation up to 4 GHz and 65 dB isolation up to 20 GHz. This non-reflective switch exhibits very fast switching speeds with very low switching transients, making it ideal for high speed RF modulation applications. With a rise time of 6.5 ns, the HMC-C019 can be used to modulate the HMC-T2100 output signal pulses with user-defined duty cycle.

Hittite's Connectorized Modules Extend HMC-T2100 Synthesizer Performance

Extend Frequency Performance to 50 GHz

Increase Dynamic Range to 120 dB

Add Multi-Port Capability

Add Pulse Capability

HMC-T2100 \$7,998.00

HMC-C019

HMC-C071

HMC-C011

HMC-C053

HMC-C025

HMC-C018

HMC-C032

HMC-C033

HMC-C034

HMC-T2100 SYNTHESIZED SIGNAL GENERATOR

The HMC-C011 and the HMC-C071 can be used to add multi-port capability to the HMC-T2100. The HMC-C011 is a DC to 20 GHz SPDT switch which provides 40 dB of isolation. The HMC-C071 is a SP4T switch which also provides 40 dB of isolation and is specified from DC to 20 GHz.

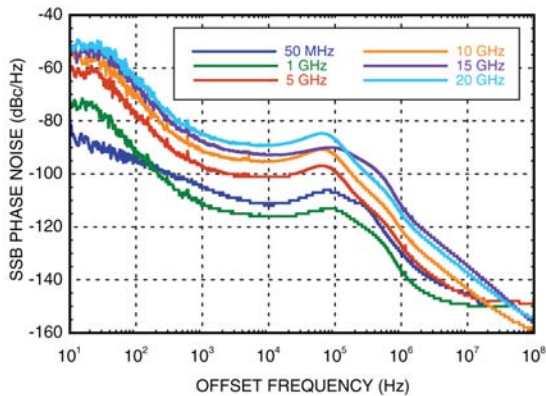


Figure 1: HMC-T2100 SSB Phase Noise vs. Frequency

The HMC-C053 is an absorptive Voltage Variable Attenuator (VVA) operating from DC to 20 GHz which features a simple single voltage attenuation control from 0 to -3V. The device is ideal in designs where an analog DC control signal must control RF signal levels over a 30 dB amplitude range. By placing the HMC-C053 at the output of the HMC-T2100, the user can realize an analog power control in excess of 60 dB. If digital control is preferred, the HMC-C025 and the HMC-C018 31.5 dB, 6-bit, digital attenuator modules, which utilize parallel and serial control respectively, may be used.

Rack Mount Kit Available!

Dual Rack Mounting Plate 19" 2u Chassis



Figure 2: Dual Rack Mounting Plate 19" 2u Chassis

The output frequency performance of the HMC-T2100 can also be extended. The HMC-C032 is an active frequency doubler with an input frequency range of 9 to 14.5 GHz. By placing the HMC-C032 at the output of the HMC-T2100, the output frequency range can be extended from 20 GHz up to 29 GHz. Similarly, the HMC-C033 or the HMC-C034 can be employed to increase the HMC-T2100 output frequency up to 33 GHz or 46 GHz as needed.

The HMC-T2100 is compact and lightweight, making it well suited for integration within various test environments, while improving overall productivity and equipment utilization. The size and capability of the HMC-T2100 ensures a simpler test configuration coupled with exceptional value.

The HMC-T2100 Synthesized Signal Generator and each of our connectorized module products are available from stock and released datasheets can be found at www.hittite.com. To order, please visit us online, www.hittite.com or contact us at sales@hittite.com or call 978-250-3343.

Windows®, Windows XP® and Windows Vista® are registered trademarks of Microsoft Corporation. LabWindows™ - is a licensed trademark of National Instruments.