



RANGING TONE GENERATOR

DIG004

Features

- Internal PRN Ranging Signal with Low-pass Filter
- Two Undedicated Buffered Outputs
- All Outputs are Dual / Selectable
- Accommodates Analog Baseband Signals to 6 MHz

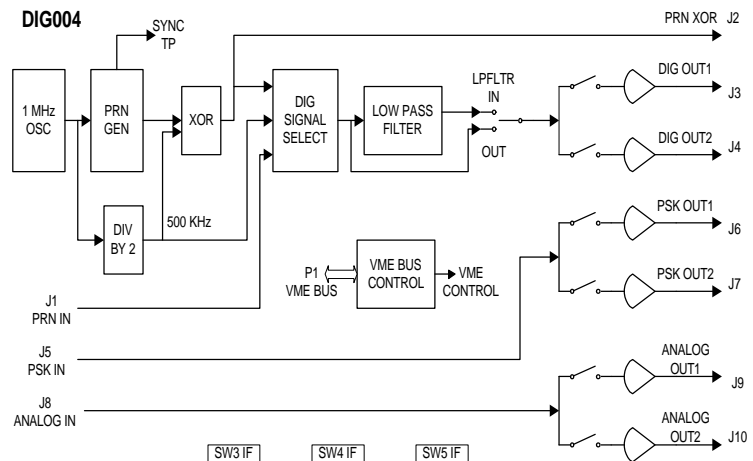
General Description

The DIG004 Ranging Tone Generator produces a digital baseband signal output selectable from one of the following: an internal PRN ranging signal (1 Mbps PRN, Exclusive-OR'd with a 500 KHz square wave); a 500 KHz square wave; or an external ranging TTL input. The baseband signal can be low-pass filtered prior to being output. Two buffer outputs are provided. Each output can be turned ON and OFF.

Provisions for buffering two external signal inputs, each with dual selectable outputs for distribution, are also included on the card. Each output can be turned ON and OFF.

All channels can accommodate analog baseband signals up to 6 MHz. The connector numbers shown are for the SMA connectors on the front panel of the DIG004 card.

Signal source, low pass filter selection and output buffer ON/OFF are all software controllable via the VME bus interface.



The DIG004 card is a double-slot 6U x 320 mm VME compatible module. A single-slot 6U x 160 mm option, without the integral selectable low-pass filter, is available.



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SPECIFICATIONS

SIGNAL SOURCES:

External

Auxiliary Ranging - TTL Data Input
Analog inputs (2ea.), each connected to two ON/OFF selectable output buffers
0 to 5 Vp-p into 75Ω

Internal

500 KHz Square Wave
1 Mbps PRN (N≤23) Exclusive-OR'd with 500 KHz Sqr Wave

LOW-PASS FILTER:

0.01 dB Ripple Cheby. 6 Pole Filter
3 dB at 1.35 MHz

OUTPUTS:

Digital Baseband - 1Vp-p into 75Ω, AC coupled
PRN ranging signal (1 Mbps PRN Exclusive-OR'd with a 500 KHz square wave)
500 KHz square wave
External PRN data input

Buffered Channels - Unity Gain, 0 to 5 Vp-p into 75Ω,
Passband up to 6 MHz

POWER:

+ 5 VDC @ 1.5A; ± 12 VDC @ 200 mA

MECHANICAL: Double-Slot 6U VME x 320 mm

ENVIRONMENT, OPERATING:

Temperature: 0 °C to + 40 °C
Relative Humidity: 5% to 95%, non-condensing
Altitude: 0 to 10,000 ft.

Ordering Information

Support: Recognizing that no standard product can meet all the needs of all users, GDP stands ready to provide units tailored to unique applications.

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