## MODEL GX320

### Cascade arrangement for simulating complex signals with 20MHz and integrated external frequency meter

## SPECIFICATIONS

| MODEL | GX320 |
|---|---|
| **INTERFACE** | |
| Display | LCD 4.92 x 1.77" (125 x 45mm) – Adjustable brightness Display of frequency on 5 digits 0.79" (20mm) high |
| Commands | 19 direct-access commands (9 backlit and adjustable) 1 Line Out On/Off key – 1 digital encoder wheel |
| Adjustment of Signal Parameters | Continuous by the encoder, automatic frequency and level ranges, selection of the increment digit (F,P,N...) |
| BNC Output Terminals | TTL, Sweep, Clock and Synch outputs |
| BNC Intput Terminals | VCG, Gate, Clock and Synch inputs |
| **CONTINUOUS SIGNAL GENERATION** | |
| Frequency | 0.001Hz to 20.000MHz (11 ranges) |
| Resolution/Accuracy | 5-digit display – resolution from 1mHz to 1kHz according to frequency range, ±20ppm for F > 10kHz, ±30ppm for F < 10kHz |
| Amplitude | 1mV to 20.0Vpp with open circuit in 3 automatic ranges – 3-digit Vpp or Vrms display |
| Flatness | ±1dB up to 20MHz (specs. for level from 0.1Vpp to 20Vpp) |
| Vdc Offset | ±10Vdc with open circuit – accuracy ±5% ±5mV |
| Waveforms | Sine/Triangle (max frequency 2MHz)/Square & "LOGIC"/TTL output |
| **FREQUENCY** | |
| Modes | LIN (linear) or LOG (logarithmic) |
| "INT" internal sweep | "Sawtooth" or "Triangle" mode Unlimited excursion between "F Start" & "F Stop" (256 steps) Sweep time adjustable from 10ms to 100s |
| "EXT" internal sweep | Sweep by signal < 15kHz, amplitude ±10V VCF IN input impedance 10kΩ approx. |
| **MODULATIONS** | |
| Internal AM | Modulation by a sine signal with a frequency of 1kHz Modulation rate 20% or 80% |
| External AM | Modulation by a signal with a frequency < 15kHz |
| Internal FM | Modulation by a sine signal with a frequency of 1kHz |
| External FM | Modulation by a signal with a frequency < 15kHz |
| **FUNCTIONS** | |
| Shift K | FSK (Internal/External) = switching between F start & F stop PSK (Internal/External) = phase switching ±180° |
| Burst          Internal          External | 1 to 65,535 impulsions pulse train period from 10ms to 100s 1 to 65,535 impulsions – Synch/Period by a TTL signal with a frequency <200 kHz (VCG IN input) |
| Gate | Validation of the AC component of "Line Out" by a TTL signal with a frequency <2MHz (GATE IN input) |
| Synch | Maximum frequency of signals generated 100kHz Adjustment of phase shift across ±180° (resolution 1°) |
| **EXTERNAL FREQUENCYMETER** | |
| Measurement Range | 5Hz to 100MHz |
| Accuracy | ±0.05% + 1 count |
| Max Acceptable Voltage | 300Vrms |
| **GENERAL** | |
| Configuration Memories | Storage/Recall of 15 complete instrument configurations |
| Communication Interface | "USB A/B" link for the programmable versions and Ethernet interface |
| Power Supply | 115V ±10% or 230V ±10%; 50/60Hz – 20VA max. – Internal selection |
| Safety/EMC | Safety as per IEC 61010-1 – EMC as per EN 61326-1 |

CE □

## FEATURES

- Frequency range from 20MHz
- DDS technology and frequency accuracy of ±20ppm
- Frequency adjustment stable to the nearest digit
- "LOGIC signal" function for direct adjustment of high and low levels
- LIN or LOG sweep, triangle or sawtooth, with adjustable duration from 10ms to 100s
- Internal and external AM & FM modulation, GATE, BURST, FSK and PSK functions
- Adjustable phase synchronization of several generators in a cascade arrangement
- 100MHz frequency meter
- Storage of 15 complete instrument configurations
- Versions programmable via USB link and Ethernet with standard SCPI protocol

| CATALOG NO. | DESCRIPTION |
|---|---|
| 2138.02 | Function Generator Model GX320 (DDS, 20MHz, USB) |