

## DUAL CHANNEL ARBITRARY WAVEFORM GENERATOR 25 MHZ

NAGMAN 309

### SALIENT FEATURES

Advanced DDS technology, max 60MHz frequency output  
Up to 250MS/s sample rate, and 1μHz frequency resolution  
Vertical Resolution : 14 bits, up to 1M arb waveform length  
Comprehensive waveform output: 5 basic waveforms,  
and 45 built-in arbitrary waveforms  
Comprehensive modulation functions:  
AM, FM, PM, FSK, PWM, Sweep, and Burst  
High-accuracy frequency counter integrated,  
supported range 100mHz - 200MHz  
SCPI, and LabVIEW supported  
4-inch-high resolution (480 × 320 pixels) LCD



Typical Photo: Final Product look may vary

### SPECIFICATIONS

|                             |                                                                                                                                       |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Channel                     | Dual                                                                                                                                  |
| Frequency Output            | 25MHz                                                                                                                                 |
| Sample Rate                 | 125MS/s                                                                                                                               |
| Vertical Resolution         | 14 bits                                                                                                                               |
| WAVEFORM                    |                                                                                                                                       |
| Standard Waveform           | Sine, Square, Pulse, Ramp, and Noise                                                                                                  |
| Arbitrary Waveform          | Exponential Rise, Exponential Fall, Sin(x)/x, Step Wave, and others, total 45 built-in waveforms, and user-defined arbitrary waveform |
| Frequency                   | USB Host, USB Device and RS232                                                                                                        |
| Dimension (W×H×D)           | 250 × 158 × 358 (mm)                                                                                                                  |
| Device Weight               | 10.50 kg                                                                                                                              |
| FREQUENCY (RESOLUTION 1MHZ) |                                                                                                                                       |
| Sine                        | 1μHz - 25MHz                                                                                                                          |
| Square                      | 1μHz - 5MHz                                                                                                                           |
| Pulse                       | 1μHz - 5MHz                                                                                                                           |
| Ramp                        | 1μHz - 1MHz                                                                                                                           |
| Noise                       | 25MHz (-3dB) (Typical)                                                                                                                |
| Arb                         | 1μHz - 10MHz                                                                                                                          |
| AMPLITUDE                   |                                                                                                                                       |
| Amplitude                   | 1mVpp - 10Vpp (50Ω), 1mVpp - 20Vpp (High Impedance)                                                                                   |
| Resolution                  | 1m Vpp or 4 digits                                                                                                                    |
| DC Offset Range (AD+DC)     | ±5V (50Ω), ±10V (High Impedance)                                                                                                      |
| DC Offset Range Resolution  | 1mV or 4 digits                                                                                                                       |
| Load Impedance              | 50Ω (Typical)                                                                                                                         |
| ARBITRARY WAVEFORM          |                                                                                                                                       |
| Wave Length                 | 2 pts to 8K pts                                                                                                                       |
| Non-volatile Memory         | 64M byte                                                                                                                              |

|                                   |         |                                                                                                             |           |
|-----------------------------------|---------|-------------------------------------------------------------------------------------------------------------|-----------|
| MODULATION                        |         |                                                                                                             |           |
| Modulation Waveform               |         | AM, FM, PM, FSK, Sweep, and Burst                                                                           |           |
| Modulation Frequency              |         | 2mHz to 20.00KHz (FSK 2mHz - 100KHz)                                                                        |           |
| CYMOMETER                         |         |                                                                                                             |           |
| Function                          |         | Frequency Period, +Width, -Width, +Duty, and -Duty                                                          |           |
| Frequency Range                   |         | 100mHz ~ 200MHz                                                                                             |           |
| Frequency Resolution              |         | 6 digits/s                                                                                                  |           |
| POWER AMPLIFIER MODULE (OPTIONAL) |         |                                                                                                             |           |
| Input Impedance                   | 50 kΩ   | Output Impedance                                                                                            | <2 Ω      |
| Max Input Voltage                 | 2.2 Vpp | Gain                                                                                                        | X 10      |
| Max Output Voltage                | 22 Vpp  | Offset                                                                                                      | <7%       |
| Output Slew Rate                  | 10V/us  | Bandwidth (at full power)                                                                                   | DC 100kHz |
| Max Output Power                  | 10 W    |                                                                                                             |           |
| INPUT / OUTPUT                    |         |                                                                                                             |           |
| Display                           |         | 4 inch (480 × 320 pixels) LCD                                                                               |           |
| Type                              |         | Counter<br>External modulation input,<br>External trigger input,<br>External reference clock input / output |           |
| Communication Interface           |         | USB host, and USB device, RS232 (option)                                                                    |           |
| MECHANICAL                        |         |                                                                                                             |           |
| Dimension (W×H×D)                 |         | 235 × 110 × 295 (mm)                                                                                        |           |
| Device Weight                     |         | 3.00 kg                                                                                                     |           |

## STANDARD INCLUSIONS

- Basic Instrument
- Power Cord
- CD Rom
- USB Cable
- Q9 Cable
- Instruction Manual

Manufactured by



Since 1972

**NAGMAN INSTRUMENTS AND ELECTRONICS PRIVATE LIMITED**

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Specifications subject to change owing to continuous development. Contact us for latest Datasheet.

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