

ZONGE GDP-16

Multi-Purpose Receiver

FEATURES

- 1 to 8 channels, field-expandable
- 80C186 MPU, 80C187 math coprocessor
- Simple to use menu-driven software
- All programs resident in memory
- Use as a data logger for analog data, borehole depth data, etc.
- 0.001 Hz to 8 kHz frequency range (standard)
- One 16 bit A/D per channel for speed & phase accuracy
- 256 KB ROM, 256 KB RAM for program execution
- Real-time data & statistics display
- Anti-alias, powerline notch & telluric filtering
- Automatic SP buckout, gain setting & calibration
- Rugged, portable & environmentally sealed
- Modular design for easy upgrades & board replacement
- In-field data processing on a personal computer
- Complete support: field peripherals, service network, software, training
- Easy to use menu driven software
- Screen-graphics: decay curves, contoured pseudosections on 256 x 128 pixel LCD
- 896 KB RAM for data storage standard, stores several days' worth of data non-volatile RAM expansion up to 6 MB
- Resistivity, Time/Frequency Domain IP, CR, CSAMT, HACSAMT & TEM capability



SPECIFICATIONS: GDP-16 MULTI-PURPOSE RECEIVER

General

Description: Broad band, multi-channel, multi-function, digital receiver

Frequency range: 0.001 Hz to 8 kHz (standard)

Number of channels: 1 to 8 (field expandable)

Survey capabilities:

- Resistivity
- Time domain IP
- Frequency/phase domain IP
- Complex resistivity
- CSAMT (scalar, vector, tensor)
- Harmonic CSAMT
- Frequency domain EM
- Transient electromagnetics (TEM)
- Magnetotellurics (MT, AMT)

Software language: C and assembly

Size: 41 X 20 X 45 cm (16 X 8 X 17.5 in)

Weight: 20 kg (43.5 lb)

Enclosure: Heavy-duty, environmentally-sealed aluminum case

Power: 12 V rechargeable batteries in removable battery pack (field-replaceable without loss of synchronization). Over 10 hours nominal operation at 20°C with 8 channel unit; additional batteries mounted internally or external battery input for extended operation in cold climates.

Temperature range: -40° to +60°C (-40° to +140°F)

Humidity range: 5% to 100%; operable in direct rain

Time base: Oven-controlled crystal oscillator; aging rate <5 x 10⁻¹⁰ per 24 hours

Displays & Controls

- LCD alphanumeric/graphics display, 41 characters by 16 lines, with continuous view-angle adjustment, optional heater for use down to -40°C.
- Sealed keyboard with 10 numeric and 25 function keys
- Analog signal meters and analog outputs
- Crystal on-off
- Crystal adjust

Analogue

Input impedance: 10 MΩ at DC

Dynamic range: 180 dB

Minimum detectable signal: 0.03 μV

Maximum input voltage: ±32 V

SP offset adjustment: ±2.5 V in 76 μV steps (automatic)

Automatic gain setting in binary steps from 1/8 to 65,536

Input: True differential for common-mode rejection

Phase Accuracy: ±0.1 milliradian (0.006 degree)

Adjacent channel isolation at 100 Hz: >90 db

Filter Selection

- Four-pole Bessel anti-alias filter (software-controlled)
- Quadruple-notch, specified by user (e.g., 50/150/250/450 Hz, 50/150/60/180 Hz, 60/180/300/540, etc.)
- Digital telluric filter

Analogue to Digital Converter

Resolution: 16 bits ±½ LSB

Conversion time: 17 μsec

Continuous self calibration

One A/D per channel for maximum speed and phase accuracy

Digital Section

Microprocessors: 80C186 with 80C187 math coprocessor
NEC V40 for keyboard, LCD display and 110 control

Memory: 256 KB ROM, 256 KB RAM for program use; 896 KB RAM data storage (standard)

Memory Expansion: 1.5 MB increments to 6 MB

On-board calendar clock

Serial ports: Two RS-232 ports

Parallel port: Two IBM/Centronics compatible printer ports one standard, one bi-directional

For Rental Information:

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