



# ST 100

## Signal generator for telephony applications

All the signals you ever needed, combined in a single unit.

### It is truly universal

The ST 100 signal generator for telephony applications is capable of accurately and simultaneously synthesising : 3 frequencies of between 10 Hz and 22 kHz, a DTMF code, a V23 code (UART), a charge signal (12 or 16 kHz) and white noise. The amplitude and duration of each signal are configurable.

With such a wide range of signals, the ST 100 signal generator for telephony applications enables you to face up to all your signal generation requirements when designing, fine-tuning or testing terminals equipped with detectors (tone, carrier, DTMF code, charge pulse receiver, etc.).

To provide such capabilities, MT2 has developed the ST 100 signal generator for telephony applications using a powerful digital signal processor (DSP) and specialist algorithms, resulting from its long experience in telephony.

### It makes your work easier

Thanks to powerful ergonomics, all of the configuration settings can be accessed quickly. The most useful configurations can be stored in the memory and called back instantly.

The ST 100 signal generator for telephony applications :

- Combines all useful functions in a compact unit, thus saving a considerable amount of time and space. The white noise generator is particularly useful for studying and checking the performance of a detector.
- Fully micro-computer controlled. Drivers compatible with National Instruments' LabView and LabWindows CVI environments are available.

### It is essential

For designing, fine-tuning and testing the behaviour of any analogue telephone terminal equipped with detectors :

- Tone (answering machine modem, remote commands, etc.).
- Carriers (modem).
- Information systems (caller ID, securitisation dialogues, etc.)
- DTMF (telephone system, remote control, etc.)
- Charge signal receivers (charge meters, payphone, etc.).

### Technical specifications

#### • **Frequencies** :

- Number available simultaneously : 3
- Sinusoidal from 10Hz to 20kHz in steps of 1Hz
- Precision :  $\pm 0.05\%$ .
- Distorsion :  $< 0,1\%$ .

#### • **Specific signals** :

- Unless otherwise specified, durations are adjustable from 0 to 10 000ms in steps of 1ms, the duration is then approximate to 2.5ms ( $\pm 1.25$ ms error) due to the internal time base.

**UART type V23 (1200 bauds).** Maximum configurable string of 74 characters. Automatic checksum. Operation is possible in Caller ID mode according to CSE E 13-08W, Channel seizure and mark signal configurable.

**DTMF according to code Q23.** Fixed frequencies, adjustable amplitude and duration. 17 characters string including a 500ms wait character.

**12kHz or 16kHz tele-charge signal.** Fixed frequencies, adjustable amplitude, duration and number. Toff from 0 to 600 000ms in steps of 10ms.

**White noise** (pseudo-random generation). Adjustable amplitude and duration. Ton from 0 to 40 000ms in steps of 10ms.

• **Delay before generating** : adjustable for each signal from 0 to 60 000ms in steps of 10ms.

• **Amplitude** :(frequencies and specific signals)  
Precision :  $\pm 0.3$ dB.  
Level : -60dBm to +15dBm (0.775mV to 4.35V / 600 ).

• **Internal resistance** : 600 or 50 or 200 (switchable).

• **Configuration memories** : 4 (EEPROM).

• **Serial link** : RS232C/USB available as an option.

• **Power supply** : 230V  $\pm 10\%$  (115/230V - Option B).

• **Temperature range**: operation at 5 to 40°C.

• **Dimensions** (L x W x D): 350 x 250 x 85 mm.

• **Weight** : 3 Kg approx.