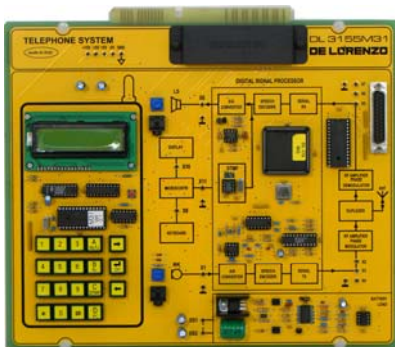


TIME ELECTRONIC BOARDS



TELECOMMUNICATIONS

CELLULAR TELEPHONY



DL 3155M31

Theoretical topics:

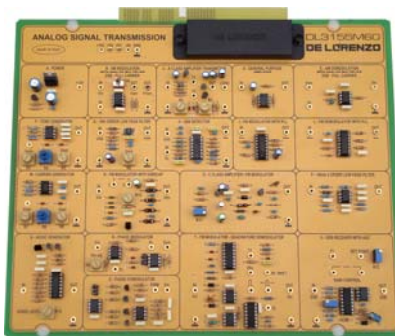
- Basic functions of the GSM cellular telephone
- Telephone keyboard and display
- Microphone and loudspeaker
- Digital Signal Processor (DSP)
- Connection to an external microphone and loudspeaker
- Connection to a personal computer
- Fault simulation

Technical features:

- Keyboard and display
- Microphone and loudspeaker
- Digital Signal Processor (DSP)

THIS IS NOT A MOBILE PHONE

ANALOGUE SIGNAL TRANSMISSION



DL 3155M60

Theoretical topics:

- Amplitude modulation and demodulation (AM)
- Double side band modulation and demodulation (DSB)
- Single side band modulation and demodulation (SSB)
- Frequency modulation and demodulation (FM)
- Phase modulation and demodulation (PM)
- VCO and PLL circuits
- Carrier generator
- Low frequency generator
- Noise generator
- Fault simulation

Technical features:

- AM modulation and demodulation
Carrier input 0 – 15 V peak-to-peak, 70 – 700 kHz
Modulator input 0 – 15 V peak-to-peak, 3.5 – 50 kHz
- DSB modulation and demodulation
Carrier input 0 – 15 V peak-to-peak, 70 – 700 kHz
Modulator input 0 – 15 V peak-to-peak, 3.5 – 50 kHz
- SSB modulation and demodulation
Selective filter
Carrier input 0 – 15 V peak-to-peak, 300 - 350 kHz
Modulator input 0 – 2 V peak-to-peak, 30 – 50 kHz
SSB demodulator with ACG
- FM modulation and demodulation
Input 1 – 10 V peak-to-peak, 2-5 kHz
Carrier 6-9 MHz
- Quadrature FM modulation and demodulation
Input 1 – 10 V peak-to-peak, 3-5 kHz
- PM modulation and demodulation
Input 1 – 5 V peak-to-peak, 0 – 300 Hz
- VCO and PLL circuits
Input 0 – 4 V peak-to-peak, 0 – 6 kHz
- Carrier generator
0 – 15 V peak-to-peak, 70 – 700 kHz
- Low frequency generator
0 – 15 V peak-to-peak, 3.5 – 50 kHz
- Noise generator
- Transmission with class C amplifier
- Gain of the receiver 15 dB