ITIE41R–Receiver

Radio Frequency section

Type of device	ISM band Receiver
Band	915MHz ISM band
Receiver sensitivity	-112dBm @ 875MHz with 1% packet error rate
Modulation	FSK/MSK
Antenna	PCB antenna (optional external antenna on request)
Data rate	Upto 600Kbps
Range	Upto 500 feet in open space Upto 200 feet in enclosed space/building/room

Power Section

Power supply	USB power from PC/Laptop through USB cable.
No external power supply required.	
Power consumption	40mW max with RF Transmitter ON

Connectors and Indicators

Front panel	Green LED to indicate power ON Amber LED to indicate data capture and transfer in progress
Back panel	USB A maleconnector for power and data transfer microSD card connector Reset switch
Enclosure	ABS plastic case
Dimensions	100 x 50 x 25 mm
Weight	150 g

Recommended operating condition

Temperature	from 0°C to +40°C
Maximum relative humidity 75%	
Atmospheric pressure	from 700 hPa to 1060 hPa

Package contents

iMedilogger ITIE41T Transmitter	1
iMedilogger ITIE41R Receiver	1
EMG Sensor cable	1
ECG Sensor cable	1
microSD card, 4Gb	1
miniUSBAB to USB A male cable	1
USB A male to USB A female cable	1
5V, 500mA USB Charger	1
User manual	1
iMediCapture Software CD	1

Disclaimer

The device is not suitable for use in environments with high oxygen concentration and/or flammable fluids and/or gases; do not use with electro-surgery or short wave/microwave therapy equipment.The device is meant for educational and research purpose only in educational institutions and not to be used with patients for monitoring.

iMedilogger ITIE41T and ITIE41R

Package contents

iMedilogger ITIE41T Transmitter	1
iMedilogger ITIE41R Receiver	1
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ECG Sensor cable	1
microSD card, 4Gb	1
miniUSBAB to USB A male cable	1
USB A male to USB A female cable	1
5V, 500mA USB Charger	1
User manual	1
iMediCapture Software CD	1

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Dimensions	250 x 250 x 50 mm
Weight	350 g including battery

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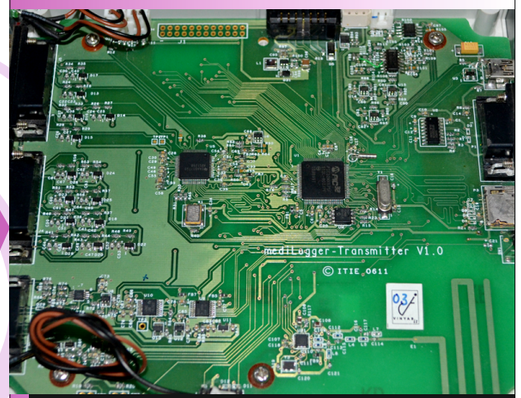
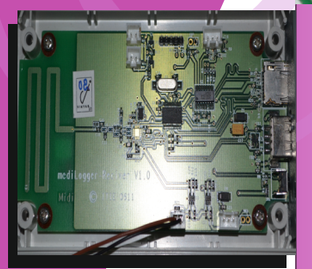
itie
Knowledge Solutions

iMediLogger

Multi Channel Data Acquisition System





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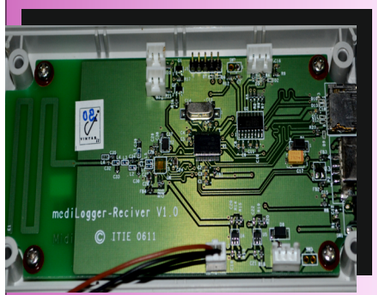


About us

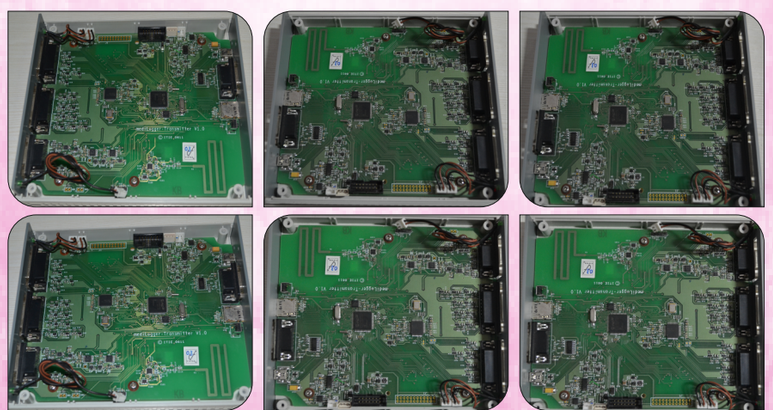
itie Knowledge Solutions - a collaborative Integrated Technologies for Industry and Education (itie) is a Biomedical Product Development, Consultancy and Technology Education Company started by IITians .

At itie Knowledge Solutions, we are focused on providing cutting edge R&D, Software development, and training solutions to industries and educational institutions.

iMedilogger ITIE41T and ITIE41R

Salient Features

- iMedilogger is compact, portable, battery operated 4-channel EMG and 1-channel ECG monitoring system.
- The device is powered using 3.7V Li-Ion battery and software is optimized for lower power consumption for longer battery life.
- The patient data captured can be transmitted on wireless to receiver unit connected to a PC/Laptop to capture/display in real-time.
- The data can also be captured onto a microSD card and use the microSD card with a PC/Laptop and read the data for analysis.
- This helps to capture the data in the field when no PC or laptop is available. iMediCapturePC software is provided along with the unit to display/store the received data.
- The stored data can be used with MATLAB for signal processing and analysis.



iMedilogger ITIE41T and ITIE41R

ITIE41T - Transmitter

EMG Section

Number of channels	4
Electrode connectivity	Single ended or differential
Type of electrode	Passive
Maximum input range	755 µVPP
Bandwidth	10 to 400Hz
Noise level referred to input	< 3 uVRMS
Amplification Gain	4500 V/V
Input impedance	> 90 MOhm on the entire bandwidth
CMRR	>96 dB
Output range	0 to 3.3 V
A/D converter resolution	24 bits
Sample frequency	800 Hz

ECG Section

Number of channels	1
Type of electrode	Passive
Maximum input range	4.7 uVPP
Bandwidth	15 to 160Hz
Noise level referred to input	< 3 uVRMS
Amplification Gain	700 V/V
Input impedance	> 90 MOhm on the entire bandwidth
CMRR	>96 dB
Output range	0 to 3.3 V
A/D converter resolution	24 bits
Sample frequency	800 Hz

Radio Frequency section

Type of device	ISM band Transmitter
Band	915MHz ISM band
Power	+12dBm @ 915MHz without RF amplifier
Modulation	FSK/MSK
Antenna	PCB antenna (optional external antenna on request)
Data rate	Upto 600Kbps
Range	Upto 500 feet in open space Upto 200 feet in enclosed space/building/room

Data storage

PC/Laptop	Through USB cable or RF
Memory card	microSD Card, 4Gb

Power Section

Power supply	Li-ion battery 3.7V, 3400mA or/and 5V through mini USB connector from AC power adapter/PC/laptop
Power consumption	200mW max with RF Transmitter ON

Connectors and Indicators

Front panel	15-pin Connector for EMG sensor cable 15-pin Connector for ECG sensor cable Green LED to indicate power ON Amber LED to indicate data capture and transfer in progress
Back panel	miniUSB connector for charging and data transfer microSD card connector Reset switch Power switch
Enclosure	ABS plastic case
Dimensions	250 x 250 x 50 mm
Weight	350 g including battery

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