−130 dBm Average Noise Level • DTV Shoulder Mask measurement

Exceptional Price Full Digital Synthesizer Mode

3.0 GHz Spectrum Analyzer

LPT-3000

- High performance digital synthesized RF
- Wide range frequency
- Wide input dynamic range
- Digital mobile(CDMA) Measurement
- Large internal memory space
- 6.4″ Color TFT LCD Display
- Low Cost and High Performance
- USB Host, LAN and more Interfaces
- Pre Amp as standard

- AM/FM HD Testing & Troubleshooting
- NRSC, FCC, and iBiquity Compliance Mask
- DTV(8VSB) FCC Mask
- Spurious Emissions and Spectrum Emissions Mask
- 1 Second Sweep Time
- 300 Hz RBW Filter for AM Digital
- 100 dBm Display Range
- Full Screen Display
- Save and Print Screen Shots
- Remote Operation from the Studio

LP Technologies, Inc.
http://www.lptech.com

Full Digital synthesizer mode –
LPT-3000, 3GHz Spectrum Analyzer of wide

The Model LPT-3000 Spectrum Analyzer is a fully synthesized RF Spectrum Analyzer featuring simple user controls which allow the novice or the seasoned expert to use the LPT-3000 right out of box. The LPT-3000 provides you with a powerful RF test and measurement tool for CDMA and WCDMA RF systems, broadcast RF systems, EMI/EMC. The features include 6.4″ color display, centronics printer, internal memory, USB host, built in CDMA measurement (ACP, Channel Power and Occupied bandwidth). The LPT-3000 Spectrum Analyzer gives educational institutions, mobile and communication system manufactures and RF product service centers a quality RF test instrument at an unbelievably affordable price.

Features
· High-performance digital synthesizer method
· Wide Frequency Coverage : 9 kHz ~ 3.0 GHz
· Superior Resolution : Minimum 1 Hz
· Compact & Portable size
· Pre Amp as standard
· Wide Input Dynamic Range : -130 ~ 20 dBm
· Ease-of-Use Key Buttons
· CDMA Measurement : ACPR, ACLR, OCBW, Channel Power
· Various and Convenient Interfaces : USB, LAN
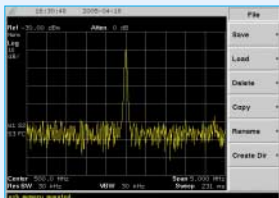· 0.5 ppm high precision reference

■ Various and convenient interfaces

GPIB(Option), LAN(Option), RS-232C, Printer, EXT Trigger REF I/O (10 MHz)

■ Remote control function
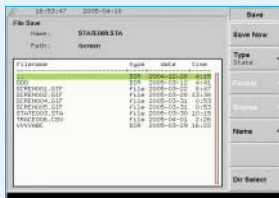
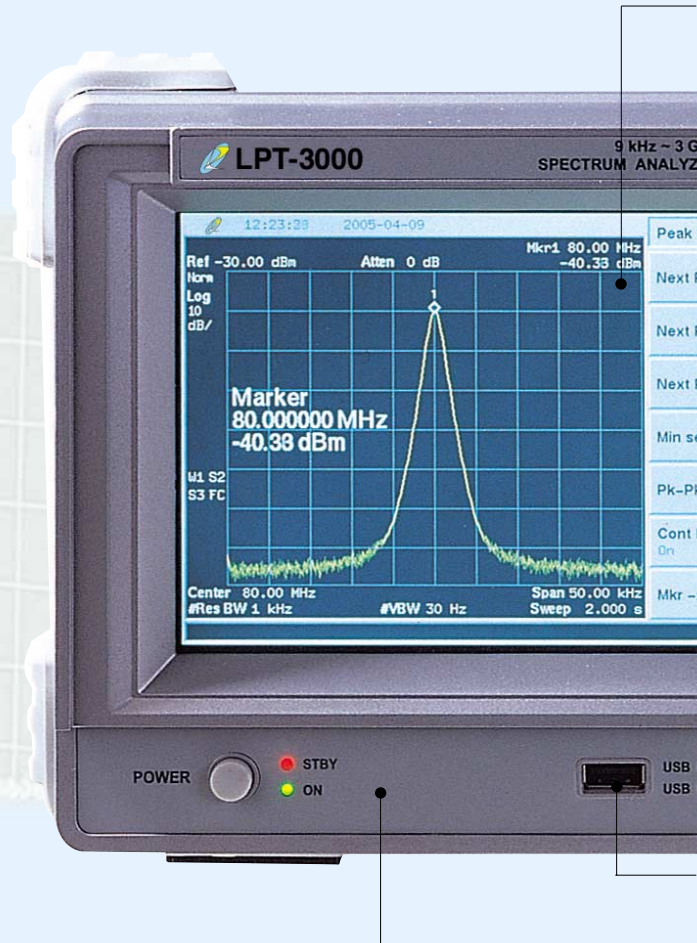Remote controls the analyzer and manages data thru PC or Internet

■ Auto set function

Automatically displays and sets maximum signal trace

■ Save / Recall function

Saves and manages measurement trace and its state in the internal memory

① **High definition 640 x 480 color TFT LCD**

High definition color TFT LCD enables high precision measurement and natural data display.

② **Simple and easy to use KEY**

Keys are allocated for user's conveniences so that users can be easily familiar with them. And they provide various functions.

③ **CDMA Measurement**

· Channel Power (CHP) Measurement :

The LPT-3000 model provides power measurement functions for mobile communication and simple menus. Measured values are automatically displayed at the bottom of trace.
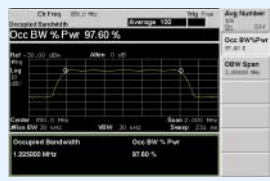
· OBW Measurement :

Measures the Occupied Bandwith(OBW) of modulation signal in the unit of %.
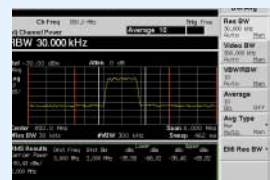
frequency and dynamic range

· **ACP Measurement** : Measures the influence of transmitted power on the Adjacent Channel, or the ratio of power to the Adjacent Channel throughout the mobile communication system using multi-channel.

④ USB Interface

– Can store measured data into the USB Memory through its built-in USB Host that supports USB 1.1 and USB 2.0 (GIF Format).

– Can convert measured data to MS Excel as it also supports the CSV file format.

– Supports nearly all types of printers such as Centronics printer and USB Interface printer.

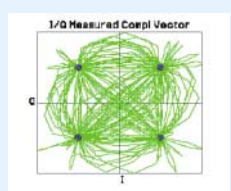– Firmware can be upgraded through USB by clicking

on our website, http://www.lptech.com.

⑤ Large Internal Memory Space

– Waveform : stores maximum 900 waveforms
– State: stores maximum 3,000 states
– Easily stores/calls waveforms and states of theequipment based on various types of application and usage

⑥ CDMA Signal Generator (Option)

This optional CDMA Signal Generator(CDMA 2000 ; Pilot Channel, WCDMA ; CPICH) contains CW signal, digital internal modulation signal and IQ modulator within itself. It is the powerful signal source sought by the CDMA application-related fields such as training and education, inspection on modules, elements and amplifliers, and on-site repair and maintenance.

Specifications

Frequency	Range	9 kHz to 3.0 GHz	
	Resolution	Minimum 1 Hz	
	Span Range	100 Hz/div to 300 MHz/div, 1,2,5steps Selection(Automatic), ZERO Span, FULL Span (9kHz to 3GHz)	
	Frequency Selection	Start, Stop, Center Span Setup	
	Span Accuracy	±3% of the Indicated Span Width	
	Readout Accuracy	≤±(Indicated frequency × reference frequency accuracy + span × span accuracy + 50% of RBW)	
	Phase Noise	≤ −90 dBc/Hz @10 kHz offset	
Amplitude	Range	+ 20 dBm ~ −105 dBm, + 20 dBm ~ −130 dBm(Pre Amp ON)	
	Average Noise Level	≤ −105 dBm	150 kHz ~ 2.7 GHz
	(1 kHz RBW,	≤ −127 dBm(Pre Amp On)	20 MHz ~ 2.7 GHz
	10 Hz VBW)	≤ −100 dBm, −123 dBm(Pre Amp On)	2.7 GHz ~ 3 GHz
		≤ −130dBm(Pre Amp On) ; Typically	
	Amplitude Unit	dBm, dBmV, dBμV, V, mV, μV, W, mW, μW	
	Display Scale Linearity	≤ ±1.5 dB / 70 dB (10 dB / div), ≤ ±1.5 dB / 40 dB (5 dB / div), ≤ ±0.5 dB / 8 dB (1 dB / div), ≤ ±0.5 dB / 16 dB (2 dB / div)	
	Frequency Response	−3.5 ~ 1.5 dB (100 kHz ~ 10 MHz)	
	(Based on 0dB atten)	±1.5 dB (10 MHz ~ 3 GHz)	
	Reference Level	Range : 20 dBm ~ −90 dBm, Resolution : 0.1 dB, Accuracy : ±1.5 dB	
	2nd Harmonic Distortion	≤ −60 dBc, −40 dBm input	
	Intermodulation Distortion	≤ −70 dBc, −40 dBm Input	
	Residual Spurious	≤ −85 dBm (Input terminated, 0 dB attenuation)	
	Other Input Spurious	≤ −60 dBc, −30 dBm Input	
	Resolution Bandwidth	Selections	1kHz, 3kHz, 10kHz, 30kHz, 100kHz, 300kHz, 1MHz, 3MHz, 9kHz, 120kHz, (New)300 Hz
		Accuracy	±20%
		Selectivity	60 dB / 3 dB ratio ⟨15 : 1, 60 dB / 6 dB ratio ⟨12 : 1 (9 kHz, 120 kHz)
		Switching Error	≤ ±1.0 dB (1 kHz Reference RBW)
	Video Bandwidth	10 Hz to 3 MHz in 1−3−10 step	
SWEEP	Rate	100 ms to 1000 sec, 40 ms to 1000 sec (Zero span)	
	Accuracy	≤ ±20%	
	Trigger Source	External(rear), Video, Free run, Line	
	Trigger Modes	Continuous, Single	
	Trigger Level	TTL level	
Memory	Trace Storage	Maximum 900 waveforms	
	Setup Storage	Maximum 3000 states	
Screen Display	Type	6.4″ Color TFT LCD	
	Display Resolution	640(H)×480(V) active display area	
	Marker Modes	Peak Search, Delta Marker, Marker to Center, Marker to Reference (8 markers maximum)	
Input	RF Input Connector	N type Female, 50 ohm nominal	
	VSWR	150 kHz ~ 3.0 GHz, VSWR ⟨ 1.5 : 1 (with 0 dBm Ref Level)	
	Maximum Input Level	0 Vdc, +20 dBm	
Standard Frequency (10MHz, Ref.)	Temperature Stability	± 0.5 ppm	
	Aging	± 0.5 ppm / Year	
	Connector	BNC Female	
	Input Level	−5 dBm to +15 dBm	
	Output Level	10 MHz, +8 dBm nominal	
Interface	RS−232C	−	
	Printer	Driver	PCL Command, HP, EPSON, Laser−Jet, Desk−Jet
		Connector	Standard 25 pin female D−Sub using parallel connector
	USB Host	Printer Driver	PCL Command, HP, EPSON, Laser−Jet, Desk−Jet
		USB Storage Device	Supports 1.1 and 2.0, image file for storage, GIF format
	Ethernet(Option)	10−Base−T Ethernet	Supports internet remote control
	GPIB Interface(Option)	IEEE 488 Bus	
General Specifications	Dimensions	350(W)×195(H)×375(D)mm	
	Weight	10 kg	
	Warming up Time	20 minutes for the precision measurement	
	Power	Source Voltage and Frequency : 100−240 VAC at 50/60Hz, Power Consumption : 80 watts maximum without option	
	Operating Temperature	0 ℃ to 40 ℃	
	Storage Temperature	−20 ℃ to 70 ℃	
	RF Emissions, RF Immunity	RF Emissions : EN 55011, FCC PART 15 Section 15.101, RF Immunity : EN 61326	

Option

· TRACKING GENERATOR   · CDMA (CDMA2000, WCDMA) SIGNAL GENERATOR   · GPIB Interface(IEEE488Bus)
· ETHERNET Interface ; for Internet Remote Control · SOFT CARRYING CASE · General KIT SET · CATV KIT SET
· RETURN LOSS BRIDGE KIT SET

· Our product specifications may change in our efforts based on New Technology

LP Technologies, Inc.