LG 3804

DVB-T

OP70:
Moving Picture Option.

LG 3804 DVB-T Signal Generator Ideal for The Production, Test and Alignment of DVB-T Compliant Tuners and Receivers/STBs.

The LG 3804 DVB-T Signal Generator, conforms to DVB-T (digital terrestrial TV in Europe System) standards, features a channel coding, modulation, C/N generator, and up converter in a single package. Consequently, the modulated signal covering VHF and UHF channels can be output.
Providing pseudo random signal (PN) and BER counter can perform BER measurement of receivers and tuners with a single unit.

In addition to the internal TS signal, the external MPEG-2 TS can be used to evaluate video and sound quality. Such powerful features are ideal for total evaluation of a reception system.

● LG 3804 REAR PANEL

FEATURES

- **All-In-One**
  This instrument features the signal generator capability and BER measurement capability in a single package. The BER function is used to measure the front-end section; the broadcasting MPEG-2 TS function is used to visually check entire system.
  Also, such features are ideal for the production line of STB and tuners.
- **Arbitrary Modulation System Settings**
  The modulation system can be arbitrary set via the front panel controls. The QVGA LCD graphically displays the setting conditions.
- **Encoding/Modulation MPEG-2 TS in Real Time**
  The MPEG-2 TS applied from the DVB-ASI or DVB-SPI connector can be encoded/modulated in real time.
- **100 Preset Conditions**
  Up to 100 preset conditions can be stored in the memory. Since the stored contents can be categorized into 10 groups, the preset mode is convenient for inspection applications.
- **Various Options**
  Moving Picture Option (Factory option)
  With the HDD and DVD-ROM installed, a stream including HDTV content (i.e., requires large storage area) and long-time TS can be played back from the HDD.

LG 3803/3804/3803-01 SPECIFICATIONS

Model	LG 3803	LG 3804
Broadcasting System		
Terrestrial Digtal TV Broadcast	ATSC A/53B	DVB-T
Cable TV Broadcast	ITU-T J.83 annex B	--
Modulation System	8VSB/ 64QAM/ 256QAM	QPSK/16QAM/64QAM, hierarchical
Band Width	--	6MHz/7MHz/8MHz
Coding Rate	--	1/2, 2/3, 3/4, 5/6, 7/8
FFT Mode	--	2k, 8k
Guard Interval	--	1/4, 1/8, 1/16, 1/32
RF Signal Generator		
Frequency Range	50 to 900MHz	30 to 960 MHz
Output Range	-100 to + 13dBm (into 50Ω)	
Input/Output Signal Sources		
Pseudo Random Signal	PN15, PN23	
Still Picture Pattern	Color bar, ramp, monoscope	
Sound(Tone)	1kHz(LR), 400Hz(LR), 1kHz(L) +400Hz(R)	
Screen Size	1080i/ 720p/ 480p/ 480i(16:9)/ 480i(4:3)	(*1)
DVB-ASI Input		
Input Connector	BNC (Impedance; 75Ω)	
Input Level	0.8Vp-p	
Baud Rate	270Mbps	
DVB-SPI Input		
Input Connector/Impedance	25-pin D-sub/100Ω differential input	
Input Level	LVDS	
Input Format	MPEG-2 TS or BER count input	
ASI, SPI Input Specification		
Input Packet Format	188, 204 byte	
Applicable Stream	MPEG-2 TS (ISO/IEC 13818-1)	
FREQ STD Input/Output		
Input Connector	BNC (Impedance; 50Ω)	
Input Level	0.8 Vp-p	
Input Frequency	10 MHz	
4-Line Serial BER Input		
Input Connector	BNC	
Input Level	LVTTL 3.3V	
Input Signal	CLOCK, DATA, SYNC, VALID	
BER Counter Section		
Input Section		
Packet Length	188,204 byte	
Input Connector	DVB-SPI connector, Serial Input Connector	
GO/NO-GO Function		
Threshold Settings	Upper and Lower limits of BER	
GO/NO-GO Indication	Displays GO/NO-GO on the screen	
C/N Generator Section		
C/N Variable Range	0 to 35 dB (Setting Resolution: 0.1dB)	
On/Off	Selectable	
External Interface		
Memory Card Interface	Compact flash card (CFA TYPE-I)	
ETHER Interface	10BASE-T, 100BASE-TX	
USB Interface	USB1.1	
GP-IB	24-pin, ANSI/IEEE Std 488.1 - 1987	
Display Panel		
LCD	5.7" QVGA (320 x 240) TFT Color LCD	
Environmental Conditions		
Spec-Guaranteed Temperature	10 to 35 °C	
Spec-Guaranteed Humidity	≤85 %RH (without condensation)	
Power Requirements		
Voltage	90 to 250 VAC, 50/60 Hz	
Power Consumption	140W max.	
Dimensions	16.8(W)×5.9(H)×17.9(D) inch	
Weight	Approx 30.9 Lbs	

*1 : Picture pattern and sizes are subject to without notice.

Model	LG 3803-01
Modulator Section	
Standard	ANSI/SCTE 55-1, 55-2
Modulation System	QPSK
Symbol Rate	1.024Msps (55-1; Alternative)
	0.772Msps (55-2:Grade A)
	1.544Msps (55-2;Grade B)
RF Signal Generator	
Frequency Range	70 to 130MHz
Output Range	-100 to + 13dBm (into 50Ω)
Input/Output Signal Sources	
Pseudo Random Signal	PN15, PN23
BER Serial Input	
Input Connector	BNC (Impedance; 75Ω)
Input Level	LVTTL 3.3V
BER Counter Section	
Input Connector	Serial Input Connector
GO/NO-GO Function	
Threshold Settings	Upper and Lower limits of BER
GO/NO-GO Indication	Displays GO/NO-GO on the screen
C/N Generator Section	
C/N Variable Range	0 to 20dB
Setting Resolution	0.1dB
On/Off	Selectable
External Interface	
Memory Card Interface	Compact flash card (CFA TYPE-I)
ETHER Interface	10BASE-T, 100BASE-TX
Display Panel	
Environmental Conditions	
Spec-Guaranteed Temperature	10 to 35 °C
Spec-Guaranteed Humidity	≤85 %RH (without condensation)
Power Requirements	
Voltage	90 to 250 VAC, 50/60 Hz
Power Consumption	40W max.
Dimensions	16.8(w)×3.9(H)×17.9(D) inch
Weight	Approx 15.5 Lbs