

XG2038 PCM Channel Analyzer

The XG2038 is a world-class portable overall measuring instrument with many testing functions for PCM channel characteristics (both full-channel and half-channel), and error testing for E1 as well, based on multi-task OS of Win CE.

It can be used to measure PCM device, digital switch, carrier wave communication device, client's dispatching equipment, digital broadcasting station with voice channel interface and VoIP device, especially applicable to science research, manufacturing, engineering installation, check and acceptance as well as maintenance.



Basic Functions

- Voice channel Characteristics testing
 - ✓ A-A: Level, Variation of gain with frequency, Variation of gain with input level, Total distortion including quantizing distortion, Idle channel noise, Crosstalk, Return loss, Longitudinal conversion loss, Longitudinal conversion transfer loss.
 - ✓ A-D, D-A, D-D: Level, Variation of gain with frequency, Variation of gain with input level, Total distortion including quantizing distortion, Idle channel noise, Crosstalk
- 2M (E1) frame and unframed BER testing, alarm detection and error analysis
- Call set-up: support on-hook, off-hook, dialing, ringing, and ringing supervise.
- Auto and manual mode available, on the auto mode, all or one or several of the above performance characteristics can be selected to measure.
- Support test of frequency spots sequence of equal step and customized frequency spots, and the number of spots is optional.
- Support selective frequency measuring on all frequency spot
- Results are shown graphically, and can be compared with the built-in reference module to evaluate whether it passes or fails
- Perfect indication of working state and alarm.
- Large storage capacity of results and measuring configurations, up to 100 groups.
- Available in remote control via USB and Ethernet interface, to meet the need of different control modes
- Results can be uploaded to PC, so as to be analyzed, assembled, filed and printed via TestManager Pro software.

Main Features

- Overall functions, satisfy users; measuring requirements
- Integrated with tone oscillator, Selective Frequency Meter, BER tester and Call Generation,

more PCM channel characteristics can be measured one time

- 5.7 inches 640X480 high-resolution colorful LCD display
- Flexible control modes, supporting touch operation, key-stroke operation and expanded mouse operation
- Convenient Windows style, easy to operate
- Built-in call set-up circuit can set up testing channel directly by dialing on the tester without the help of other telephone.
- Built-in generator and receiver, analog input and output interfaces are separately with ICT and OGT. Interfaces can be directly tested, including 2/4W E&M, MDR, LGE, FXO, LGS and FXS.
- Built-in balanced bridge and reflecting bridge, Return loss, Longitudinal conversion loss and Longitudinal conversion transfer loss can be measured by one tester.
- Built-in test mode can be defined by clients, efficiently satisfying testing standard definition of different products
- Remote control signaling group is available, so as to secondarily develop under different conditions by clients
- Embedded software can be upgraded online and protect the client's investment

Configurations

Item	QTY	Item	QTY
PCM Channel Analyzer	1	Stylus	1
AC Power Adapter	1	Portable bag	1
Special Testing Cable	1	Quality Certificate	1
USB communication Cable	1	User's Manual	1
TestManager Pro (CD)	1	Maintenance Card	1
		Packing List	1

Specifications

		Item	Description	
Analog Loop	Generator	Sine wave signal output	Frequency Range	200Hz~3600Hz, Step:1Hz
			Level	+5dBm0~-60dBm0, Step: 0.1dB
			Distortion Rate	1020Hz, 0dBm0, <-55dB
			Variation of Frequency Response	±0.1dB

Receiver	Level	Range	200Hz~3600Hz	
		Level Range	+5dBm0~-60dBm0	
		Error Range	±0.1dB	
	Variation of Gain with Frequency	Reference Frequency	1020Hz, -10dBm0	
		Measuring Range	+200Hz~3600Hz	
		Error Range	±0.1dB	
	Variation of Gain with input Level	Reference Frequency	1020Hz, +5dBm0~-56dBm0	
		Measuring Range	+20dB~-20dB	
		Error Range	±0.1dB	
	Total Distortion	Reference Frequency	1020Hz, -56 dBm0~+5 dBm0	
		Measuring Range	0~-40dB, ITU-T Weighted	
		Error Range	±0.8dB	
	Idle Channel Noise	Secondary Signal	420Hz, -45dBm0	
		Measuring Range	+5~-110 dBm0, ITU-T Weighted	
		Error Range	±0.5dB	
	Crosstalk	Main-crosstalk Signal	1020dB, 0 dBm0	
		Measuring Range	+5~-75 dBm0	
		Error Range	±1 dBm0	
	Return Loss	Range	200Hz~3600Hz	
		Level Range	+5dBm0~-60dBm0	
		Error Range	±0.2dB	
	Longitudinal Conversion Loss	Range	200Hz~3600Hz	
		Level Range	+5dBm0~-60dBm0	
		Error Range	±0.2dB	
	Longitudinal Conversion Transfer Loss	Range	200Hz~3600Hz	
		Level Range	+5dBm0~-60dBm0	
		Error Range	±0.2dB	
	Interface Type		FXO (LGE), FXS (LGS), 2/4W E&M (Balanced, unbalanced), MDR	
	Interface Impedance		600Ω, 200Ω+560Ω//0.1uF, 200Ω+680Ω//0.1uF Output 0Ω and Hi-Z input	
	Relative Level		Transmitted end : +1dBr ~ -16dBr , Step:0.1dBm Received end: +7dBr~-10dBr, Step:0.1dBm	

	DC Loop		ICT: Dynamic impedance>100KΩ Loop Current: max. 60mA Loop Voltage :approx. 18V; OGT: Dynamic impedance >100KΩ, DCHC :25mA			
Digital Loop	Sine wave signal output	Frequency Range	200Hz~3600Hz, Step:1Hz			
		Level Range	+3dBm0~-56dBm0, Step:0.1dB			
Distortion Range		1020Hz, 0dBm0, <-46dB				
	Noise signal output	Transmitted Frequency	350Hz~550Hz			
		Transmitted Level	0dBm0			
Error Range		±0.5dB				
Receiver	Level	Frequency Range	200Hz~3600Hz			
		Level Range	+3dBm0~-60dBm0			
	Frequency Response	Reference Frequency	1020Hz, -10dBm0			
		Measurement Range	+200Hz~3600Hz			
		Error Range	+3 dBm0~-40 dBm0	±0.3dB		
			-40 dBm0~-50 dBm0	±0.6dB		
	-50 dBm0~-55 dBm0		±1.6dB			
	Variation of Gain with input Level	Reference Frequency	1020Hz, 0dBm0			
		Measurement Range	+3dBm0~-56dBm0			
		Error Range	+3 dBm0~-40 dBm0	±0.3dB		
			-40 dBm0~-50 dBm0	±0.6dB		
	-50 dBm0~-55 dBm0		±1.6dB			
	Total Distortion	Noise	Frequency Range	350Hz~550Hz		
			Level Range	+3dBm0~-60dBm0		
		Tone	Frequency Range	200Hz~3600Hz		
			Level Range	+3dBm0~-60dBm0 ITU-T Weighted		
			Error Range	+3 dBm0~-40 dBm0	±0.3dB	
				-40 dBm0~-50 dBm0	±0.6dB	
		-50 dBm0~-55 dBm0		±1.6dB		
		Idle Channel Noise	Measuring Range	+0~-110 dBm0, ITU-T Weighted		
Error Range	±1dB					
Crosstalk	Main-crosstalk Signal	1020dB, 0 dBm0				
	Measuring Range	+3~-80 dBm0				
	Error Range	±1 dBm0				
Other	Interface Impedance		75Ω、120Ω			

E1 Error Testing		Frame Type	PCM30/30CRC、PCM31/31CRC
		Coding Method	A-rule, I-rule
		Output Code	HDB3、AMI
	Basic Settings	Interface Impedance	75Ω、120Ω
		Frame Type	PCM30/30CRC、 PCM31/31CRC、Non-frame
		Coding Method	A-law, I-law
		Output Code	HDB3、AMI
		Testing Pattern	2 ²⁰ -1、2 ¹⁵ -1、2 ¹¹ -1、2 ⁹ -1、2 ⁷ -1、1111、0000、 1010、32bit programmable
		Transmitted Clock	Internal, interface
	Result Analysis	Alarm Second	Signal loss, frame alignment, AIS, Multi-frame alarm
Signal Analysis		Line rate, Frequency Offset	
Basic Analysis (BIT、CODE、FAS)		Error, CER, EFS, AER	
G.821Analysis		ES, DM, SES, Unavailability	
TestManager Pro		Support WIN98/NT/ME/2000/XP	
Power Supply		AC220V;10% , 50Hz	
Dimension		300mm;200mm;52mm (L;W;H)	
Working Temperature		0℃~50℃	
Storage Temperature		-20℃~70℃	
Humidity		5%~95% non-condensing	
Weight		Approx. 1.8kg	