

UTS2000 SERIES Spectrum Analyzers

UNI-T

UTS2010 / UTS010D / UTS2020 / UTS2020D / UTS2030 / UTS2030D



SPECIFICATIONS-Part 1

Specifications	UTS2010	UTS2010D	UTS2020	UTS2020D	UTS2030	UTS2030D
Range	9kHz~1GHz		9kHz~2GHz		9kHz~3GHz	
Resolution	1Hz					
Accuracy	\pm (Frequency Marker Readout*Frequency Reference Accuracy +1%*Span +10%*RBW+0.5*[Span/(Sweep Points-1)]+1Hz)					
Internal Reference(10MHz)	Aging Rate < 1ppm/year; Stability Over Temperature < 0.5ppm(15°C~ 35°C)					
Resolution Bandwidth (RBW)						
Range	Standard: 10Hz~3MHz, Optional: 1Hz~10Hz					
Electability(60dB/3dB)	*RBW < 500kHz; < 5:1 Typical (Digital implementation next to Gaussian shape); < 5% Typical"					
Accuracy	RBW ~ 500kHz; < 5%, Typical					
Video Bandwidth	10Hz~3MHz, 1-3-10 Sequence					
Average Noise Level (10Hz RBW, 0dB RF Attenuator)						
Preamplifier Off	100kHz/-90dBm, 1MHz/-125dBm, 100MHz/-122dBm, 500MHz/-122dBm, 1000MHz/-120dBm, 1.4GHz/-118dBm, 1.8GHz/-115dBm, 2.2GHz/-121dBm, 2.5GHz/-121dBm, 3.0GHz/-120dBm					
Preamplifier On	100kHz/-139dBm, 1MHz/-130dBm, 100MHz/-140dBm, 500MHz/-135dBm, 1000MHz/-133dBm, 1.4GHz/-134dBm, 1.8GHz/-130dBm, 2.2GHz/-138dBm, 2.5GHz/-138dBm, 3.0GHz/-137dBm					
Phase Noise						
Offset 10kHz	-80dBc/Hz					
Offset 30kHz	-90dBc/Hz					
Offset 1MHz	-115dBc/Hz					
Sweep Time						
Span (100Hz≤SPAN≤3GHz)	10ms to 3000s					
Zero Span	1ms to 3000s					
Sweep Modes	Continuous, Single					
Trigger						
Trigger Source	AUTO, Video, EXT					
Offset 100kHz	5V TTL Level (Typical)					
Frequency Counter						
Resolution	1Hz, 10Hz, 100Hz, 1kHz					
Uncertainty	Frequency Readout x Frequency Reference Progress+Counter Resolution					
Amplitude Accuracy (20°C~30°C)						
Overall Amplitude Accuracy(90%)	\pm 1.2dB Input Signal Range:-50dBm~0dBm		\pm 1.5dB Input Signal Range:-50dBm~0dBm		\pm 1.5dB Input Signal Range:-50dBm~0dBm	
Amplitude						
Max. Safe Input Level	Average Continuous Power:+23dBm		Average Continuous Power:+23dBm		Average Continuous Power: +27dBm	

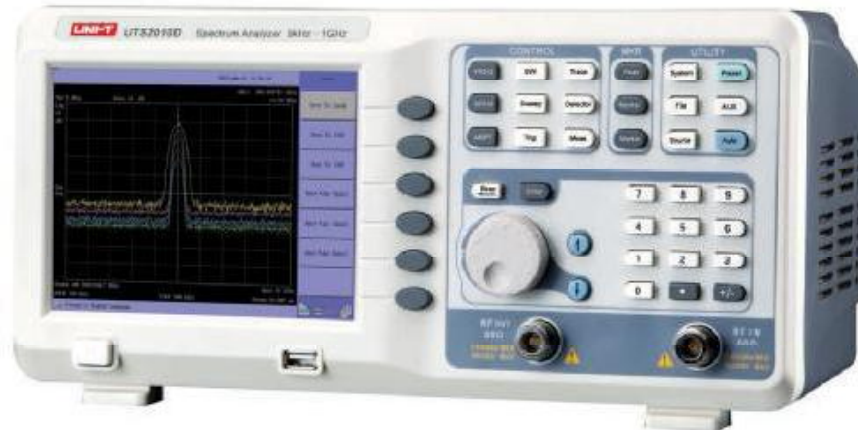
UTS2000 SERIES Spectrum Analyzers

UNI-T®

UTS2010 / UTS010D / UTS2020 / UTS2020D / UTS2030 / UTS2030D



EN61326-1
EN61010-1



SPECIFICATIONS-Part 2

Specifications	UTS2010	UTS2010D	UTS2020	UTS2020D	UTS2030	UTS2030D
Max. Input DC Voltage	50Vdc					
Input Attenuator Range	0~30dB, in 1dB step		0~30dB, in 1dB step		0~30dB, in 3dB step	
1dB Compression	+7dBm					
Stray and Residual Response						
Third-Order Intercept(TOI)	> 30MHz: +13dBm					
Second Harmonic Intercept(SHI)	+30dBm					
Input Related Spurious	< -60dBm					
Residual Response	< -85dBm					
Tracking Generator						
Frequency Range	—	100kHz to 1GHz	—	100kHz to 1.8GHz	—	100kHz to 3GHz
Output Power	—	-30dBm~0dBm, in 1dB step	—	-30dBm~0dBm, in 1dB step	—	-30dBm~0dBm, in 1dB step
Output Flatness	—	±3dB	—	±3dB	—	±3dB
Input/Output						
RF Input	N Type, Female(50Ω)					
USB	USB Host,USB Device					
LAN	10/100 Base-T, RJ-45 Connector					
RS-232	9 Pin D-SUB (Positive)					
AM/FM Demodulation	Headset					
Reference Input/Output	10MHz,BNC Negative,Input: 0dBm; +10dBm; Output: 0dBm±2dB					
VGA	640 x 480,60Hz,15 Pin,D-SUB(Negative)					

GENERAL CHARACTERISTICS

Internal Memory	128MB
Power	Input Voltage: 110VAC/220VAC (Optional); Frequency: 40Hz~60Hz; Max Consumption: 35W
Display	6.5 Inches TFT LCD, VGA (640×480)
Product Color	White and Gray
Product Net Weight	3.0 Kg
Product Size (W×H×D)	330mm × 163mm × 165mm
Standard Accessories	Power Cord, N/SMA Converter, N/BNC Converter, RF Cable, Antenna
Standard Individual Packing	Gift Box, English Manual
Standard Quantity Per Carton	1 PC
Standard Carton Measurement(L×W×H)	475mm × 255mm × 240mm
Standard Carton Cross Weight	5.1 Kg
Optional Accessories	USB-GPIB

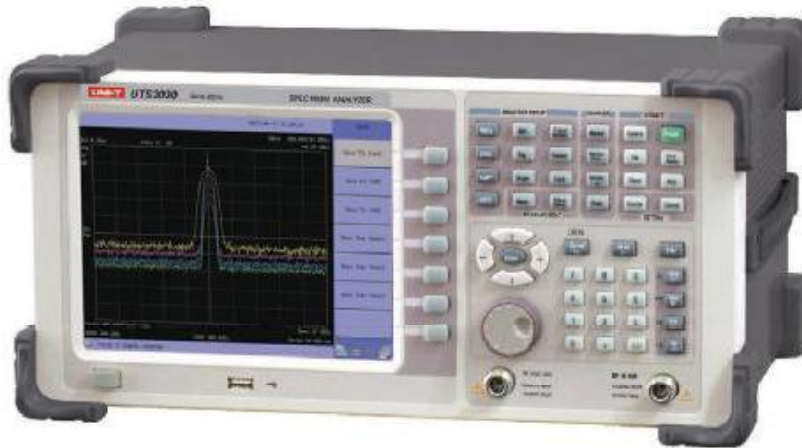
UTS3000 SERIES Spectrum Analyzer

UNI-T®

UTS3030 / UTS3030D



EN61326-1
EN61010-1



SPECIFICATIONS-Part 1

Specifications	UTS3030	UTS3030D
Spectrum Measurement		
Range	9kHz~3GHz	
Resolution	1Hz	
Accuracy	$\pm(\text{Frequency Marker Readout} \times \text{Frequency Reference Accuracy} + 1\% \times \text{Span} + 10\% \times \text{RBW} + 0.5 \times (\text{Span} / (\text{Sweep Points} - 1))) + 1\text{Hz}$	
Internal Reference(10MHz)	Aging Rate < 1ppm/year; Stability Over Temperature < 0.5ppm(15°C ~ 35°C)	
Resolution Bandwidth (RBW)		
Range (< 10Hz Optional)	5Hz ~ 3MHz	
Electability(60dB/3dB)	RBW ≤ 500kHz; < 5:1 Typical (Digital implementation, next to Gaussian shape); < 5% Typical	
Accuracy	RBW ≤ 500kHz; < 5%, Typical	
Video Bandwidth	10Hz~3MHz, 1-3-10 Sequence	
Average Noise Level (10Hz RBW, 0dB RF Attenuator)		
100kHz~1MHz	<-90dBm-3*(f/100kHz)dB	
100kHz~10MHz	<-120dBm	
10MHz~1GHz	<-122dBm	
1GHz~3GHz	<-120dBm	
Phase Noise		
Offset 10kHz	-85dBc/Hz	
Offset 1MHz	-115dBc/Hz	
Sweep Time		
Span (100Hz ≤ SPAN ≤ 3GHz)	10ms to 3000s	
Zero Span	1ms to 3000s	
Sweep Modes	Continuous, Single	
Trigger		
Trigger Source	AUTO, Video, EXT	
Offset 100kHz	5V TTL Level (Typical)	
Frequency Counter		
Resolution	1Hz, 10Hz, 100Hz, 1kHz	
Uncertainty	Frequency Readout x Frequency Reference Progress + Counter Resolution	
Amplitude Accuracy (20°C~30°C)		
Overall Amplitude Accuracy(90%)	±1.5dB Input Signal Range: -50dBm~0dBm	
Amplitude		
Max. Safe Input Level	Average Continuous Power: +33dBm	
Max. Input DC Voltage	50Vdc	

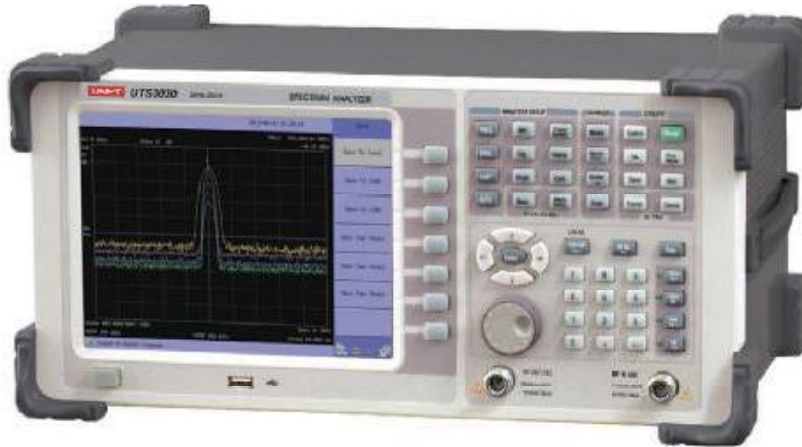
UTS3000 SERIES Spectrum Analyzer

UNI-T®

UTS3030 / UTS3030D



EN61326-1
EN61010-1



SPECIFICATIONS-Part 2

Specifications	UTS3030	UTS3030D
Input Attenuator Range		0~50B, in 1dB step
1dB Compression		+13dBm
Stray and Residual Response		
Third-Order Intercept(TOI)		> 30MHz: + 10dBm
Second Harmonic Intercept(SHI)		+30dBm
Input Related Spurious		< -60dBm
Residual Response		< -85dBm
Tracking Generator		
Frequency Range	—	100kHz to 3GHz
Output Power	—	-30dBm ~ 0dBm,in 1dB step
Output Flatness	—	±3dB
Input/Output		
RF Input		N Type, Female(50Ω)
USB		USB Host,USB Device
LAN		10/100 Base-T, RJ-45 Connector
RS-232		9 Pin D-SUB (Positive)
AM/FM Demodulation		Headset
Reference Input/Output		10MHz, BNC Negative,Input: 0dBm~+10dBm; Ouput: 0dBm±2dB
VGA		640*480, 60Hz,15 Pin,D-SUB (Negative)

GENERAL CHARACTERISTICS

Internal Memory	256MB
Power	Input Voltage:110VAC / 220VAC (Optional); Frequency: 40Hz~60Hz; Max Consumption: 60W
Display	8.4 Inches TFT LCD, VGA (800*600)
Product Color	White and Gray
Product Net Weight	8.6 Kg
Product Size (W×H×D)	390mm × 182mm × 230mm
Standard Accessories	Power Cord,N/SMA Converter,N/BNC Converter, RF Cable, Antenna
Standard Individual Packing	Gift Box,English Manual
Standard Quantity Per Carton	1 PC
Standard Carton Measurement(L×W×H)	480mm × 380mm × 285mm
Standard Carton Cross Weight	9.3 Kg
Optional Accessories	USB-GPIB