

## UTS2000 SERIES Spectrum Analyzers

# UNI-T®

UTS2010 / UTS010D / UTS2020 / UTS2020D / UTS2030 / UTS2030D



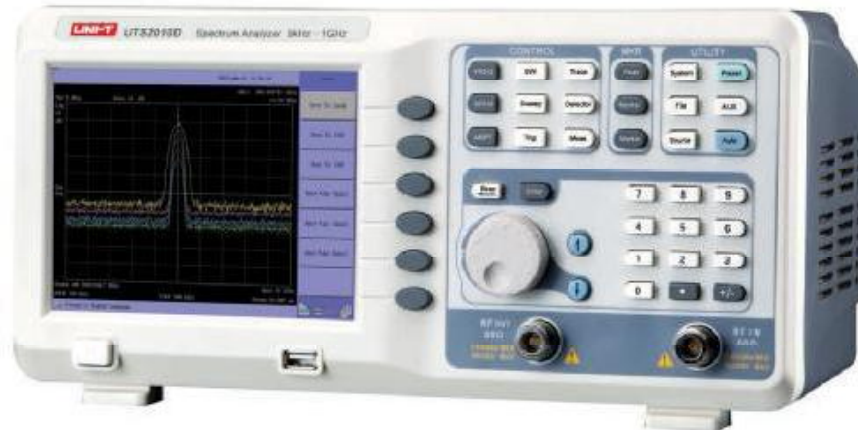
### SPECIFICATIONS-Part 1

Specifications	UTS2010	UTS2010D	UTS2020	UTS2020D	UTS2030	UTS2030D
Range	9kHz~1GHz		9kHz~2GHz		9kHz~3GHz	
Resolution	1Hz					
Accuracy	± (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)					
<b>Resolution Bandwidth (RBW)</b>						
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					
<b>Average Noise Level (10Hz RBW, 0dB RF Attenuator )</b>						
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					
<b>Phase Noise</b>						
Offset 10kHz	-80dBc/Hz					
Offset 30kHz	-90dBc/Hz					
Offset 1MHz	-115dBc/Hz					
<b>Sweep Time</b>						
Span (100Hz ≤ SPAN ≤ 3GHz)	10ms to 3000s					
Zero Span	1ms to 3000s					
Sweep Modes	Continuous, Single					
<b>Trigger</b>						
Trigger Source	AUTO, Video, EXT					
Offset 100kHz	5V TTL Level (Typical)					
<b>Frequency Counter</b>						
Resolution	1Hz, 10Hz, 100Hz, 1kHz					
Uncertainty	Frequency Readout x Frequency Reference Progress + Counter Resolution					
<b>Amplitude Accuracy (20°C~30°C)</b>						
Overall Amplitude Accuracy(90%)	±1.2dB Input Signal Range:-50dBm~0dBm		±1.5dB Input Signal Range:-50dBm~0dBm		±1.5dB Input Signal Range:-50dBm~0dBm	
<b>Amplitude</b>						
Max. Safe Input Level	Average Continuous Power:+23dBm		Average Continuous Power:+23dBm		Average Continuous Power: +27dBm	

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### 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					
<b>Stray and Residual Response</b>						
Third-Order Intercept(TOI)	> 30MHz: +13dBm					
Second Harmonic Intercept(SHI)	+30dBm					
Input Related Spurious	< -60dBm					
Residual Response	< -85dBm					
<b>Tracking Generator</b>						
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
<b>Input/Output</b>						
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

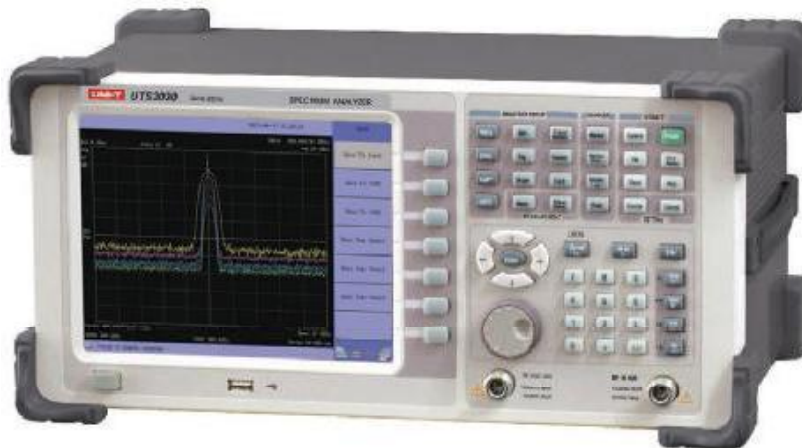
# UTS3000 SERIES Spectrum Analyzer

**UNI-T®**

UTS3030 / UTS3030D



EN61326-1  
EN61010-1



## SPECIFICATIONS-Part 1

Specifications	UTS3030	UTS3030D
<b>Spectrum Measurement</b>		
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)	
<b>Resolution Bandwidth (RBW)</b>		
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	
<b>Average Noise Level (10Hz RBW, 0dB RF Attenuator)</b>		
100kHz~1MHz	< -90dBm-3*(f/100kHz)dB	
100kHz~10MHz	< -120dBm	
10MHz~1GHz	< -122dBm	
1GHz~3GHz	< -120dBm	
<b>Phase Noise</b>		
Offset 10kHz	-85dBc/Hz	
Offset 1MHz	-115dBc/Hz	
<b>Sweep Time</b>		
Span (100Hz ≤ SPAN ≤ 3GHz)	10ms to 3000s	
Zero Span	1ms to 3000s	
Sweep Modes	Continuous, Single	
<b>Trigger</b>		
Trigger Source	AUTO, Video, EXT	
Offset 100kHz	5V TTL Level (Typical)	
<b>Frequency Counter</b>		
Resolution	1Hz, 10Hz, 100Hz, 1kHz	
Uncertainty	Frequency Readout x Frequency Reference Progress + Counter Resolution	
<b>Amplitude Accuracy (20°C~30°C)</b>		
Overall Amplitude Accuracy(90%)	±1.5dB Input Signal Range: -50dBm~0dBm	
<b>Amplitude</b>		
Max. Safe Input Level	Average Continuous Power: +33dBm	
Max. Input DC Voltage	50Vdc	

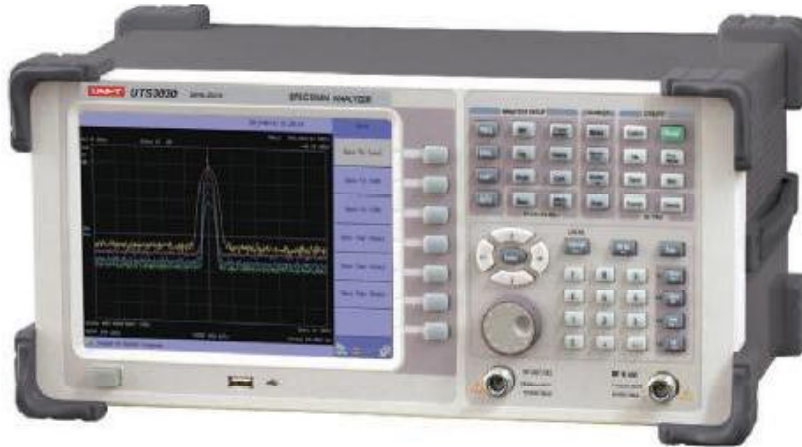
## UTS3000 SERIES Spectrum Analyzer

**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
<b>Stray and Residual Response</b>		
Third-Order Intercept(TOI)		> 30MHz: + 10dBm
Second Harmonic Intercept(SHI)		+30dBm
Input Related Spurious		< -60dBm
Residual Response		< -85dBm
<b>Tracking Generator</b>		
Frequency Range	—	100kHz to 3GHz
Output Power	—	-30dBm ~ 0dBm,in 1dB step
Output Flatness	—	±3dB
<b>Input/Output</b>		
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
<b>Optional Accessories</b>	USB-GPIB