

俊科[®] SHX 脉冲衰减器 (Pulse Attenuators)



主要特点(Main Specifications)

- 峰值电压最高8kV(Peak Voltage up to 8kV)
- 平均功率3W或4W(Average Power 3W/4W)
- 电压比500 ~1000:1可选
(Voltage Ratio 500~1000:1 Available)
- 可靠性高, 重复性好(High Reliability)
- 产品符合RoHS规范(Measure up RoHS)
- 可按照客户要求定制(Custom Design available)

MS301/401脉冲群/EFT脉冲校验套件用来分压和衰减高压信号, 使信号波形衰减到示波器可接受的检测范围内, 主要应用于工业电磁兼容领域, 抗扰度试验, 主要用于定期对脉冲群发生器等测试系统本身的校验, 保证发生器输出的波形正确, 以保证测试系统良好的性能和测试精度。MS301/401 包括一个50Ω 终端负载和一个1kΩ 终端负载, 产品符合GB/T_17626.4-2008和EN/IEC 61000-4-4 修订2:2001,可承受最高8kV 的脉冲电压, 工作带宽400MHz。MS301/401可选配SHV, BNC, SOV, DN等各种高压接头, 与所有脉冲群/EFT发生器兼容。

MS301/401 serial burst/EFT pulse verification kit has been specially designed to comply with the new requirements of GB/T_17626.4-2008 and IEC/EN 61000-4-4: amendment 2: 2001 to enable EMC engineers to verify their burst/EFT test generators periodically in order to ensure good functionality and accuracy.

MS301/401 comprises two terminations with impedance 50Ω~50Ω and 1kΩ~50Ω- plus SHV, BNC, SOV, DN adaptors or cable. The whole is delivered in a handy case.

技术指标(Specifications)

型 号(Model No.)	MS301-4000	MS301-8000	MS401-4000	MS401-8000
最大功率(Max power rating)	3W rms		4W rms	
最大峰值电压(Max peak voltage)	4kV	8kV	4kV	8kV
最长运行时间(Max operating time)	120 s (5kHz,300ms/15ms)		300 s (5kHz,300ms/15ms)	
标称衰减量(Nominal attenuation)	-54dB or -60dB		-60dB	
标称电压比(Nominal voltage radio)	500:1(equal to -54dB) 1000:1(equal to -60dB)		1000:1	
输入阻抗(Input impedance)	50Ω		1000Ω	
输出阻抗(Output impedance)	50Ω		50Ω	
带宽(Bandwidth)	400MHz		400MHz	
连接器形式(Connectors) 输入(Input) 输出(Output)	SHV, BNC		SHV, BNC	
	BNC female		BNC female	
工作温度(Temperature Range)	-10℃~+40℃			
外形尺寸(Dimensions)	131.6×25.5×25.5mm			
重量(Weight)	140g			

脉冲校验套件专用转接器 (Adaptors for Burst/EFT Pulse Verification Kit)



SHV(M) - BNC(M)



SHV(M) - SOV(M)



SHV(M) - SHV(M)



SHV(M) - DN(M)

* 外型尺寸公差±5% (Dimensions Tolerance ±5%)

**可按照客户要求订制(Custom designs available.)

俊科[®] SHX 脉冲衰减器 (Pulse Attenuators)

MS2-4000/MS2-8000 抗脉冲衰减器 (MS2-4000/MS-8000 Anti-pulse Attenuators)



型号(Model Number)	MS2-4000	MS2-8000
频率范围(Frequency Range)	DC-2000MHz	
标称衰减量(Nominal attenuation)	20±0.5dB (DC-500MHz) 30±0.5dB (DC-500MHz) (0.5-2GHz attenuation curve available)	
驻波比(VSWR)	<1.25 (DC-500MHz) ; <1.4 (500MHz-1000MHz); ≤1.6 (>1000MHz)	
平均功率(Average Power)	10W	
最大峰值电压(Max peak voltage)	4kV	8kV

MS50-20 高压脉冲衰减器 (MS50-20 High Voltage Pulse Attenuators)



型号(Model Number)	MS50-20
频率范围(Frequency Range)	DC-1500MHz
标称衰减量(Nominal attenuation)	30±0.8dB (DC-500MHz) 30±1.5dB (500-1500MHz)
驻波比(VSWR)	<1.45 (DC-1000MHz)
平均功率(Average Power)	50W
最大峰值电压(Max peak voltage)	20kV(pulse width 200ns,10% duty cycle)
阻抗(impedance)	50Ω
连接器形式(Connectors)	Input: HN(F) high voltage special connector Output: N(F)
工作温度(Temperature Range)	-55°C~+125°C
外形尺寸(Dimensions)	Ø52×265.8mm
重量(Weight)	1.135Kg

* 外型尺寸公差±5% (Dimensions Tolerance ±5%)

**可按照客户要求订制(Custom designs available.)

俊科[®] SHX 连续可调/步进衰减器 (Variable/Step Attenuators)

一、产品描述(Product Description)



连续可调/步进衰减器可在一定频率范围内连续或以步进形式调节微波电路的功率电平，也可以作为仪器设备的机内衰减器，具有体积小、精度高、稳定可靠等特点。

Variable/step attenuators can be used to adjust the power signal level continuously or by step within certain frequency range, they can also be used to adjust the test system's power level as inset attenuators, it is small with high accuracy and high stability etc.

衰减器
可调

二、产品规格(Product Reference Guide)

GKTS50-300大功率连续可调衰减器，平均功率50-300W，衰减范围0-25dB，频率0.9-4GHz.

(GKTS50-300 high power continuous variable attenuators with average power 50-300W, attenuation value 0-20 dB and frequency range 0.9-4GHz)

GKTS-A转鼓式步进衰减器，平均功率2W，10W，衰减范围0-101dB，频率DC-18GHz.

(GKTS-A rotary step attenuators with average power 2W, 10W, attenuation value 0-101dB and frequency range DC-18GHz)

GKTS-B按键式步进衰减器，平均功率2W，5W，10W，25W衰减范围0-90dB，频率DC-4GHz.

(GKTS-B pushbutton step attenuators with average power 2W, 5W, 10W, 25W, attenuation value 0-90dB and frequency range DC-4GHz)

GKTS-C简易可调衰减器，平均功率1W，衰减范围0-20dB，频率DC-2.5GHz.

(GKTS-C simple continuous attenuators with average power 1W, attenuation value 0-20dB and frequency range DC-2.5GHz)

GKTS-D程控衰减器，平均功率2W，5W，10W，30W，衰减范围0-120dB，频率DC-1GHz.

(GKTS-D programmable attenuators with average power 2W, 5W, 10W, 30W, attenuation value 0-120dB and frequency range DC-1GHz)

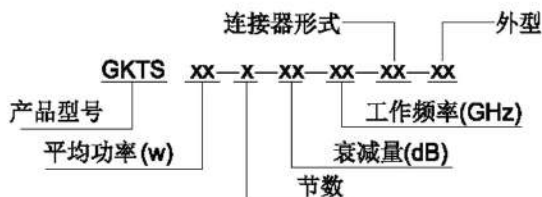
GKTS-E连续可调衰减器，平均功率10W，衰减范围大于50dB，频率0.5-18GHz.

(GKTS-E continuous variable attenuators with average power 10W, attenuation value at least 50dB and frequency range 0.5-18GHz)

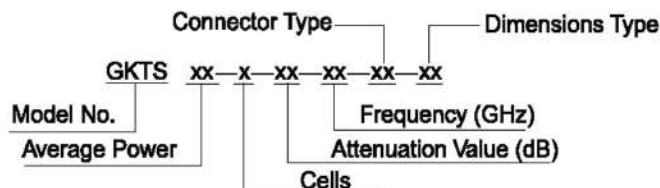
KTS-5连续可调衰减器，平均功率5W，衰减范围0-60dB，频率DC-2GHz.

(KTS-5 continuous variable attenuators with average power 5W, attenuation value 0-60dB and frequency range DC-2GHz)

三、订货说明 Order Information



GKTS 2-4-10-2.5-N(J,K)-B 表示GKTS型步进衰减器，平均功率2W，节数4节，衰减值10dB，工作频率2.5GHz，连接器形式为N(J,K)型，外型为B型。



Example:

GKTS 2-4-10-2.5-N(J,K)-B means GKTS step attenuators with average power 2W,attenuation step size 4,attenuation value10dB,frequency range 2.5GHz,connector type N(J,K)and dimensions type B.

俊科[®] SHX 连续可调/步进衰减器 (Variable/Step Attenuators)

型号(Model Number):GKTS50 大功率连续可调衰减器

GKTS50 High Power Continuous Variable Attenuators

特性阻抗(Impedance): 50Ω

平均功率(Average Power): 50W

连接器形式(Connector Type): N(K,K)

外型尺寸(Dimensions): 120×96.5×75mm

重量(Weight): 1.2Kg

温度范围(Tem. Range): -40°C~+65°C



型号 Model Number	频率范围 Frequency Range(GHz)	频宽 Bandwidth (MHz)	衰减精度 Attenuation Accuracy(dB)	调节范围 Attenuation Range(dB)	最大驻波比 Max VSWR	插入损耗 Insertion Loss(dB)
GKTS50-10	0.9-4	100	±0.5	0-10	1.5	≤1.0
		200				

型号(Model Number):GKTS75 大功率连续可调衰减器

GKTS75 High Power Continuous Variable Attenuators

特性阻抗(Impedance): 50Ω

平均功率(Average Power): 75W

连接器形式(Connector Type): N(K,K)

外型尺寸(Dimensions): 135×98×75mm

重量(Weight): 1.5Kg

温度范围(Tem. Range): -40°C~+65°C



型号 Model Number	频率范围 Frequency Range(GHz)	频宽 Bandwidth (MHz)	衰减精度 Attenuation Accuracy(dB)	调节范围 Attenuation Range(dB)	最大驻波比 Max VSWR	插入损耗 Insertion Loss(dB)
GKTS75-10	0.9-4	100	±0.5	0-10	1.5	≤1.0
		200				
GKTS75-15	0.9-4	100	±0.5	0-15	1.5	≤1.0
		200				

型号(Model Number):GKTS100 大功率连续可调衰减器

GKTS100 High Power Continuous Variable Attenuators

特性阻抗(Impedance): 50Ω

平均功率(Average Power): 100W

连接器形式(Connector Type): N(K,K)

外型尺寸(Dimensions): 190×102×75mm

重量(Weight): 2Kg

温度范围(Tem. Range): -40°C~+65°C



型号 Model Number	频率范围 Frequency Range(GHz)	频宽 Bandwidth (MHz)	衰减精度 Attenuation Accuracy(dB)	调节范围 Attenuation Range(dB)	最大驻波比 Max VSWR	插入损耗 Insertion Loss(dB)
GKTS100-10	0.9-4	100	±0.5	0-10	1.5	≤1.0
		200				
GKTS100-20	0.9-4	100	±0.5	0-20	1.5	≤1.0
		200				
GKTS100-15	5-8	100	±1.0	0-15	1.55	≤1.2
		200				
GKTS100-12	9.5-10.5	100	±1.0	0-12	1.60	≤1.5
		200				

型号(Model Number):GKTS300 大功率连续可调衰减器

GKTS300 High Power Continuous Variable Attenuators

特性阻抗(Impedance): 50Ω

平均功率(Average Power): 300W

连接器形式(Connector Type): N(K,K)

外型尺寸(Dimensions): 259×102×75mm

重量(Weight): 2.6Kg

温度范围(Tem. Range): -40°C~+65°C



型号 Model Number	频率范围 Frequency Range(GHz)	频宽 Bandwidth (MHz)	衰减精度 Attenuation Accuracy(dB)	调节范围 Attenuation Range(dB)	最大驻波比 Max VSWR	插入损耗 Insertion Loss(dB)
GKTS300-10	0.9-4	100	±0.5	0-10	1.5	≤1.0
		200				
GKTS300-25	0.9-4	100	±0.5	0-25	1.5	≤1.0
		200				
GKTS300-15	5-8	100	±1.0	0-15	1.55	≤1.2
		200				
GKTS300-12	9.5-10.5	100	±1.0	0-12	1.60	≤1.5
		200				

* 外型尺寸公差±3% (Dimensions Tolerance ±3%)

**若非特别说明,外形尺寸和技术指标对应N型连接器(Dimensions and specifications refer to connector type N unless otherwise specified.)

***可按客户要求订制特殊规格衰减量和精度(Custom designs available for other special attenuation value & accuracy.)

俊科[®] SHX 连续可调/步进衰减器 (Variable/Step Attenuators)

型号(Model Number): GKTS10-18-E

特性阻抗(Impedance): 50Ω

平均功率(Average Power): 10W

连接器形式(Connector Type): N(K,K)

外型尺寸(Dimensions):

0.5-4G:186×170×19mm

2-18G:186×170×21mm

重量(Weight): 590g

温度范围(Tem. Range):

-40°C~+85°C

型号 Model Number	平均功率 Average Power(W)	频率范围 Frequency Range(GHz)	插入损耗 Insertion Loss(dB)	衰减值 Attenuation Value(dB)	电压驻波比 VSWR
GKTS10-4-E	10	0.5-4	≤0.5	≥20 (P>1) 15~18 (P<1)	≤1.50
GKTS10-18-E		2-4	≤0.4	≥40	
		4-8	≤0.5	≥40	
		8-12.4	≤0.8	≥50	
		12.4-18	≤1.2	≥40	



型号(Model Number): GKTS-C简易可调衰减器

GKTS-C Simple Variable Attenuators

特性阻抗(Impedance): 50Ω, 75Ω

平均功率(Average Power): 1W

连接器形式(Connector Type): N, SMA

外型尺寸(Dimensions): N:47.5×20×42mm

SMA:41×20×38mm

重量(Weight): 65g

温度范围(Tem. Range): -40°C~+85°C



型号 Model Number	频率范围 Frequency Range(GHz)	调节范围 Attenuation Value(dB)
GKTS-1-C	DC-2.5	0-10
GKTS-2-C		0-16

GKTS-B系列按键式步进衰减器

GKTS-B Serial Pushbutton Step Attenuators

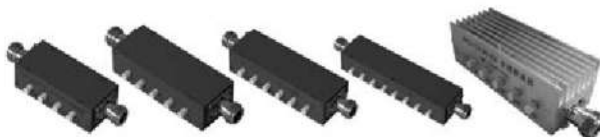
平均功率(Average Power): 2W, 5W, 10W

特性阻抗(Impedance): 50Ω or 75Ω

连接器形式(Connector Type): N, SMA (Impedance: 50Ω)

N, BNC, F (Impedance: 75Ω)

温度范围(Temperature Range): -20°C~+85°C



型号 Model Number	节数 Cells	频率范围 Frequency Range(GHz)	衰减范围 Attenuation Range (dB)	衰减步级 Attenuation Step(dB)	衰减精度 Attenuation Accuracy		最大驻波比 Max VSWR	插入损耗 Insertion Loss (dB)	外形尺寸 Dimensions (mm)	重量 Weight (g)
					2W/5W	10W				
GKTSXX-1-20-1-B	1	DC-1	0-20dB in 20dB steps	20	±0.2	±0.4	1.30	≤0.4	64×35.5×20	85
GKTSXX-1-20-2.5-B		DC-2.5			±0.4	±0.8		≤0.6		
GKTSXX-1-20-3-B		DC-3			±0.5	±1.0		≤0.75		
GKTSXX-1-20-3.5-B		DC-3.5			±0.6	±1.5		≤1.0		
GKTSXX-1-20-4-B		DC-4			±0.8	±1.5		≤1.2		
GKTSXX-2-30-1-B	2	DC-1	0-30dB in 10dB steps	10, 20	±0.3	±0.6	1.40	≤1.0	78×35.5×20	80
GKTSXX-2-30-2.5-B		DC-2.5			±0.5	±1.0		≤1.5		
GKTSXX-2-30-3-B		DC-3			±0.75	±1.5		≤2.0		
GKTSXX-2-30-3.5-B		DC-3.5			±0.8	±2.5	1.45 1.5@10W	≤2.5		
GKTSXX-2-30-4-B		DC-4			±1.0	±2.5	1.5 1.7@10W	≤3.0		
GKTSXX-4-10-1-B	4	DC-1	0-10dB in 1dB steps	1, 2, 3, 5	±0.3	±0.5	1.40	≤1.0	106×35.5×20	110
GKTSXX-4-10-2.5-B		DC-2.5			±0.5	±1.0		≤1.8		
GKTSXX-4-10-3-B		DC-3			±0.6	±1.0	1.5	≤2.5		
GKTSXX-4-10-3.5-B		DC-3.5			±0.8	±1.5	1.7@10W	≤3.0		
GKTSXX-4-10-4-B		DC-4			±1.0	±2.0	1.55 1.7@10W	≤3.5		
GKTSXX-5-25-1-B	5	DC-1	0-25dB in 1dB steps	1, 2, 4, 8, 10	±0.4	±0.75	1.40	≤1.2	120×35.5×20	125
GKTSXX-5-25-2.5-B		DC-2.5			±0.75	±1.5		≤2.5		
GKTSXX-5-25-3-B		DC-3			±1.0	±2.0	1.5	≤3.0		
GKTSXX-5-25-3.5-B		DC-3.5			±1.2	±3.0	1.7@10W	≤3.5		
GKTSXX-5-25-4-B		DC-4			±1.5	±3.0	1.55 1.7@10W	≤4.0		
GKTSXX-5-30-1-B	5	DC-1	0-30dB in 1dB steps	1, 2, 4, 8, 16	±0.4	±0.75	1.40	≤1.2		
GKTSXX-5-30-2.5-B		DC-2.5			±0.75	±1.5		≤2.5		
GKTSXX-5-30-3-B		DC-3			±1.0	±2.0	1.5	≤3.0		
GKTSXX-5-30-3.5-B		DC-3.5			±1.2	±3.0	1.7@10W	≤3.5		
GKTSXX-5-30-4-B		DC-4			±1.5	±3.0	1.55 1.7@10W	≤4.0		

※ X对应功率(X refer to average power in W)

* 外型尺寸公差±5% (Dimensions Tolerance ±5%)

**若非特别说明,外形尺寸和技术指标对应N型连接器(Dimensions and specifications refer to connector type N unless otherwise specified.)

***可按客户要求订制特殊规格衰减量和精度(Custom designs available for other special attenuation value & accuracy.)

俊科[®] SHX 连续可调/步进衰减器 (Variable/Step Attenuators)

GKTS-B系列按键式步进衰减器

GKTS-B Serial Pushbutton Step Attenuators

平均功率(Average Power): 2W, 5W, 10W

特性阻抗(Impedance): 50Ω or 75Ω

连接器形式(Connector Type): N, SMA (Impedance: 50Ω)

N, BNC, F (Impedance: 75Ω)

温度范围(Temperature Range): -20°C ~ +85°C



型号 Model Number	节数 Cells	频率范围 Frequency Range (GHz)	衰减范围 Attenuation Range (dB)	衰减步进 Attenuation Step (dB)	衰减精度 Attenuation Accuracy (dB)		最大驻波比 Max VSWR	插入损耗 Insertion Loss (dB)	外形尺寸 Dimensions (mm)	重量 Weight (g)
					2W/5W	10W				
GKTSXX-6-40-1-B	6	DC-1	0-40dB in 1dB steps	1,2,4,8,10,16	±0.5	±1.0	1.40	≤1.5	134×35.5×20	140
GKTSXX-6-40-2.5-B		DC-2.5			±1.0	±2.0		≤2.5		
GKTSXX-6-40-3-B		DC-3			±1.25	±2.5	1.50	≤3.0		
GKTSXX-6-40-3.5-B		DC-3.5			±1.5	±3.5	1.70@10W	≤4.0		
GKTSXX-6-40-4-B	8	DC-4	0-10dB in 0.1dB steps	0.1,0.2,0.3, 0.5,1,2,3,5	±1.8	/	1.55	≤4.5	162×35.5×20	170
GKTSXX-8-10-1-B		DC-1			±0.25	±0.5	1.40	≤1.5		
GKTSXX-8-10-2.5-B		DC-2.5			±0.5	±0.75	1.50	≤1.8		
GKTSXX-8-10-3-B		DC-3			±0.8	±1.0		≤1.5		
GKTSXX-8-60-1-B	8	DC-1	0-60dB in 1dB steps	1,2,4,8,10,10, 10,16	±0.5dB(0-10dB) ±0.8dB(10-50dB) ±3%dB(≥50dB)	单节精度±0.6dB Single step±0.6dB	1.40	≤1.5	162×35.5×20	170
GKTSXX-8-60-2.5-B		DC-2.5			±0.8dB(0-10dB) ±1.25dB(10-50dB) ±3%dB(≥50dB)	单节精度±1.0dB Single step±1.0dB		≤3.0		
GKTSXX-8-60-3-B		DC-3			±0.8dB(0-10dB) ±2dB(10-50dB) ±4%dB(≥50dB)	单节精度±1.0dB Single step±1.0dB	1.50	≤3.5		
GKTSXX-8-60-3.5-B		DC-3.5			±1.0dB(0-10dB) ±2dB(10-50dB) ±4%dB(≥50dB)	单节精度±1.2dB Single step±1.2dB	1.60	≤4.5 ≤5.0@10W		
GKTSXX-8-60-4-B	8	DC-4	0-70dB in 1dB steps	1,2,4,8,10,10, 16,20	±1.2dB(0-10dB) ±2.5dB(10-50dB) ±4%dB(≥50dB)	单节精度±1.5dB Single step±1.5dB	1.75	≤5.0 ≤6.5@10W	162×35.5×20	170
GKTSXX-8-70-1-B		DC-1			±0.5dB(0-10dB) ±0.8dB(10-50dB) ±3%dB(≥50dB)	单节精度±0.6dB Single step±0.6dB	1.40	≤2.0		
GKTSXX-8-70-2.5-B		DC-2.5			±0.8dB(0-10dB) ±1.25dB(10-50dB) ±3%dB(≥50dB)	单节精度±1.0dB Single step±1.0dB		≤3.5		
GKTSXX-8-70-3-B		DC-3			±0.8dB(0-10dB) ±2dB(10-50dB) ±4%dB(≥50dB)	单节精度±1.0dB Single step±1.0dB	1.50	≤3.5		
GKTSXX-8-70-3.5-B	8	DC-3.5	0-90dB in 1dB steps	1,2,4,8,16,20, 20,20	±1.0dB(0-10dB) ±2dB(10-50dB) ±4%dB(≥50dB)	单节精度±1.2dB Single step±1.2dB	1.60	≤4.5 ≤5.0@10W	162×35.5×20	170
GKTSXX-8-70-4-B		DC-4			±1.2dB(0-10dB) ±2.5dB(10-50dB) ±4.5%dB(≥50dB)	单节精度±1.5dB Single step±1.5dB	1.75	≤5.0 ≤6.5@10W		
GKTSXX-8-90-1-B		DC-1			±0.5dB(0-10dB) ±0.8dB(10-50dB) ±3%dB(≥50dB)	单节精度±0.6dB Single step±0.6dB	1.40	≤2.0		
GKTSXX-8-90-2.5-B		DC-2.5			±0.8dB(0-10dB) ±1.25dB(10-50dB) ±3%dB(≥50dB)	单节精度±1.0dB Single step±1.0dB		≤3.5		
GKTSXX-8-90-3-B	5	DC-3			±0.8dB(0-10dB) ±2dB(10-50dB) ±4%dB(≥50dB)	单节精度±1.0dB Single step±1.0dB	1.50	≤3.5	134×42.5×34	215
GKTSXX-8-90-3.5-B		DC-3.5			±1.0dB(0-10dB) ±2dB(10-50dB) ±4%dB(≥50dB)	单节精度±1.2dB Single step±1.2dB	1.60	≤4.5 ≤5.0@10W		
GKTSXX-8-90-4-B		DC-4			±1.2dB(0-10dB) ±2.5dB(10-50dB) ±4.5%dB(≥50dB)	单节精度±1.5dB Single step±1.5dB	1.75	≤5.0 ≤6.5@10W		
GKTS25-5-23-1-B		DC-1			±1.25dB		1.30	≤5.5		
GKTS25-5-23-2.5-B	5	DC-2.5	0-23dB in 1dB steps	1,2,4,8,8	±1.6dB		1.60	≤6.5		
GKTS25-5-23-3-B		DC-3			±2.0dB		1.60	≤7.0		
GKTS25-5-30-1-B		DC-1			±1.25dB		1.30	≤5.5		
GKTS25-5-30-2.5-B	5	DC-2.5	0-30dB in 1dB steps	1,2,4,8,16	±2.0dB		1.60	≤6.5		
GKTS25-5-30-3-B		DC-3			±2.5dB		1.60	≤7.0		

※ X对应功率(X refer to average power in W)

* 外型尺寸公差±5% (Dimensions Tolerance ±5%)

**若非特别说明,外形尺寸和技术指标对应N型连接器(Dimensions and specifications refer to connector type N unless otherwise specified.)

***可按客户要求订制特殊规格衰减量和精度(Custom designs available for other special attenuation value & accuracy.)

俊科[®] SHX 连续可调/步进衰减器 (Variable/Step Attenuators)

型号(Model Number): GKTSX-1-XX-X-A1
 特性阻抗(Impedance): 50Ω
 平均功率(Average Power): 2W,10W
 峰值功率(Peak Power): 100W(5μs pulse width with 2% duty cycle)
 连接器形式(Connector Type): SMA(F,F) N(F,F)
 外型尺寸(Dimensions): Ø30×63mm
 重量(Weight): 250g
 温度范围(Tem. Range): -20°C~+85°C



型号 Model Number	频率范围 Frequency Range(GHz)	衰减步进 Attenuation Step Size	最大驻波比 Max VSWR	插入损耗 Insertion Loss(dB)	衰减精度 Attenuation Accuracy (dB)
GKTSX-1-1-2.5-A1	DC-2.5	0-1dB in 0.1dB steps	1.25	≤0.5	±0.2
GKTSX-1-1-3-A1	DC-3		1.30	≤0.5	±0.2
GKTSX-1-1-4.3-A1	DC-4.3		1.35	≤0.75	±0.3
GKTSX-1-1-6-A1	DC-6		1.40	≤1.0	±0.3
GKTSX-1-10-2.5-A1	DC-2.5	0-10dB in 1dB steps	1.25	≤0.4	±0.4
GKTSX-1-10-3-A1	DC-3		1.30	≤0.5	±0.5
GKTSX-1-10-4.3-A1	DC-4.3		1.35	≤0.75	±0.5
GKTSX-1-10-6-A1	DC-6		1.40	≤1.0	±0.5
GKTSX-1-60-2.5-A1	DC-2.5	0-60dB in 10dB steps	1.25	≤0.4	±0.5
GKTSX-1-60-3-A1	DC-3		1.30	≤0.5	±0.5(<50dB)
GKTSX-1-60-4.3-A1	DC-4.3		1.35	≤0.75	±0.8 or ±3% (≥50dB)
GKTSX-1-60-6-A1	DC-6		1.40	≤1.0	±0.8 or ±3% (≥50dB)
GKTSX-1-90-2.5-A1	DC-2.5	0-90dB in 10dB steps	1.25	≤0.4	±0.5(<50dB)
GKTS2-1-90-3-A1	DC-3		1.30	≤0.5	±3%(>50dB)

※ X对应功率(X refer to average power in W)

型号(Model Number): GKTSX-2-XX-X-A2
 特性阻抗(Impedance): 50Ω
 平均功率(Average Power): 2W,10W
 峰值功率(Peak Power): 100W(5μs pulse width with 2% duty cycle)
 连接器形式(Connector Type): SMA(F,F) N(F,F)
 外型尺寸(Dimensions): Ø30×120mm
 重量(Weight): 435g
 温度范围(Tem. Range): -20°C~+85°C



型号 Model Number	频率范围 Frequency Range(GHz)	衰减步进 Attenuation Step Size	最大驻波比 Max VSWR		插入损耗 Insertion Loss(dB)	衰减精度 Attenuation Accuracy (dB)
			SMA	N		
GKTSX-2-11-2.5-A2	DC-2.5	0-11dB in 0.1dB steps	1.30	1.45	≤1.0	±0.2dB(≤1dB) ±0.4dB(>1dB)
GKTSX-2-11-3-A2	DC-3		1.35	1.45	≤1.2	±0.3dB(≤1dB)
GKTSX-2-11-4.3-A2	DC-4.3		1.40	1.55	≤1.5	±0.5dB(>1dB)
GKTSX-2-11-6-A2	DC-6		1.55	1.60	≤1.8	±0.5dB(>1dB)
GKTSX-2-50-2.5-A2	DC-2.5	0-50dB in 1dB steps	1.30	1.35	≤1.0	±0.5dB(≤10dB) ±0.8dB or 3% (<50dB)
GKTSX-2-70-2.5-A2	DC-2.5	0-70dB in 1dB steps	1.30	1.45	≤1.0	±0.5dB(≤10dB)
GKTSX-2-70-3-A2	DC-3		1.35	1.45	≤1.2	±0.8dB or 3% (<80dB)
GKTSX-2-70-4.3-A2	DC-4.3		1.40	1.55	≤1.5	±1.5dB or 3% (≥80dB)
GKTSX-2-70-6-A2	DC-6		1.55	1.60	≤1.8	±1.5dB or 3% (≥80dB)
GKTSX-2-100-2.5-A2	DC-2.5	0-100dB in 1dB steps	1.30	1.45	≤1.0	±0.3dB(≤10dB)
GKTS2-2-100-3-A2	DC-3		1.35	1.45	≤1.2	±0.8dB or 3% (<80dB) ±1.5dB or 3% (<70dB) ±3.5% (≥70dB)

※ X对应功率(X refer to average power in W)

* 外型尺寸公差±5% (Dimensions Tolerance ±5%)

**若非特别说明,外形尺寸和技术指标对应N型连接器(Dimensions and specifications refer to connector type N unless otherwise specified.)

***可按照客户要求订制特殊规格衰减量和精度(Custom designs available for other special attenuation value & accuracy.)

俊科[®] SHX 连续可调/步进衰减器 (Variable/Step Attenuators)

型号(Model Number): GKTSX-2-XX-X-A3
 特性阻抗(Impedance): 50Ω
 平均功率(Average Power): 2W,10W
 峰值功率(Peak Power): 100W(5μs pulse width with 2% duty cycle)
 连接器形式(Connector Type): N(F,F)
 外型尺寸(Dimensions): 193×88×80mm
 重量(Weight): 1000g
 温度范围(Tem. Range): -20°C~+85°C



型号 Model Number	频率范围 Frequency Range(GHz)	衰减步进 Attenuation Step Size	最大驻波比 Max VSWR	插入损耗 Insertion Loss(dB)	衰减精度 Attenuation Accuracy (dB)
GKTSX-2-11-2.5-A3	DC-2.5	0-11dB in 0.1dB steps	1.40	≤1.2	±0.3dB(≤1dB) ±0.5dB(>1dB)
GKTSX-2-11-3-A3	DC-3		1.45		
GKTSX-2-11-4.3-A3	DC-4.3		1.50		
GKTSX-2-11-6-A3	DC-6		1.65		
GKTSX-2-70-2.5-A3	DC-2.5	0-70dB in 1dB steps	1.40	≤1.2	±0.8dB or 3%(<60dB) ±1.5 dB or 3% (>60dB)
GKTSX-2-70-3-A3	DC-3		1.45		
GKTSX-2-70-4.3-A3	DC-4.3		1.50		
GKTSX-2-70-6-A3	DC-6		1.65		
GKTSX-2-100-2.5-A3	DC-2.5	0-100dB in 1dB steps	1.40	≤1.2	±0.8dB or 3%(<60dB) ±1.5dB or 3%(<70dB) ±3.5%(≥70dB)
GKTSX-2-100-3-A3	DC-3		1.45		

※ X对应功率(X refer to average power in W)

型号(Model Number): GKTSX-3-XX-X-A4
 特性阻抗(Impedance): 50Ω
 平均功率(Average Power): 2W,10W
 峰值功率(Peak Power): 100W(5μs pulse width with 2% duty cycle)
 连接器形式(Connector Type): N(F,F)
 外型尺寸(Dimensions): 250.5×87×79mm
 重量(Weight): 1250g
 温度范围(Tem. Range): -20°C~+85°C



型号 Model Number	频率范围 Frequency Range(GHz)	衰减步进 Attenuation Step Size	最大驻波比 Max VSWR	插入损耗 Insertion Loss(dB)	衰减精度 Attenuation Accuracy (dB)
GKTSX-3-71-2.5-A4	DC-2.5	0-71dB in 0.1dB steps	1.50	≤1.5	±0.3dB(0.1~1dB)
GKTSX-3-71-3-A4	DC-3		1.60	≤1.7	±0.4dB(1~10dB)
GKTSX-3-71-4.3-A4	DC-4.3		1.70	≤2.0	±0.8dB(10~60dB)
GKTSX-3-71-6-A4	DC-6		1.75	≤2.5	±1.5dB(≤71dB)
GKTS2-3-101-2.5-A4	DC-2.5	0-101dB in 0.1dB steps	1.50	≤1.5	±0.2dB(0.1~1dB) ±0.4dB(1~10dB) ±0.8dB(10~60dB)
GKTS2-3-101-3-A4	DC-3		1.60	≤1.7	±1.5dB(<70dB) ±3.5%(≥70dB)

※ X对应功率(X refer to average power in W)

* 外型尺寸公差±3% (Dimensions Tolerance ±3%)
 **若非特别说明,外形尺寸和技术指标对应N型连接器(Dimensions and specifications refer to connector type N unless otherwise specified.)
 ***可按照客户要求订制特殊规格衰减量和精度(Custom designs available for other special attenuation value & accuracy.)

俊科[®] SHX 连续可调/步进衰减器 (Variable/Step Attenuators)

型号(Model Number): GKTSX-1-XX-18-A5
 特性阻抗(Impedance): 50Ω
 平均功率(Average Power): 2W,10W,25W
 峰值功率(Peak Power):200W(5μs pulse width with 2% duty cycle)
 连接器形式(Connector Type): SMA (F,F)
 外型尺寸(Dimensions): 0-9dB: Ø48×96mm; 0-90dB: Ø48×108mm
 25W: Ø48×112.6mm
 重量(Weight): 0-9dB:220g; 0-90dB:280g
 温度范围(Tem. Range): 0°C~+54°C



型号 Model Number	频率范围 Frequency Range(GHz)	衰减步级 Attenuation Step Size	最大驻波比 Max VSWR	插入损耗 Insertion Loss(dB)	衰减精度 Attenuation Accuracy (dB)
GKTS2-1-9-8-A5	DC-8	0-9dB in 1dB steps	1.40	≤0.8	±0.6
GKTS2-1-9-12.4-A5	DC-12.4		1.50	≤1.0	±0.8
GKTS2-1-9-18-A5	DC-18		1.60	≤1.2	±1.0
GKTS2-1-90-8-A5	DC-8	0-90dB in 10dB steps	1.40	≤1.0	±1.5(0~60)
GKTS2-1-90-12.4-A5	DC-12.4		1.50	≤1.2	±2.5 or 3.5%(70~90)
GKTS2-1-90-18-A5	DC-18		1.60	≤1.5	
GKTS10-1-9-8-A5	DC-8	0-9dB in 1dB steps	1.40	≤0.8	±0.6
GKTS10-1-9-12.4-A5	DC-12.4		1.50	≤1.0	±0.8
GKTS10-1-9-18-A5	DC-18		1.60	≤1.2	±1.0
GKTS10-1-90-8-A5	DC-8	0-90dB in 10dB steps	1.40	≤1.0	±1.5(0~60)
GKTS10-1-90-12.4-A5	DC-12.4		1.50	≤1.2	±2.5 or 3.5%(70~90)
GKTS10-1-90-18-A5	DC-18		1.60	≤1.5	
GKTS25-1-70-18-A5	DC-18	0-70dB in 10dB steps	1.65	≤1.0	±1.5dB or 4%
GKTS25-1-70-26.5-A5	DC-26.5	0-60dB in 10dB steps	1.80	≤1.8	

型号(Model Number): GKTSX-2-XX-18-A6
 特性阻抗(Impedance): 50Ω
 平均功率(Average Power): 2W,5W
 峰值功率(Peak Power): 200W(5μs pulse width with 2% duty cycle)
 连接器形式(Connector Type): SMA (F,F)
 外型尺寸(Dimensions): Ø48×163mm
 重量(Weight): 480g
 温度范围(Tem. Range): 0°C~+54°C



型号 Model Number	频率范围 Frequency Range(GHz)	衰减步级 Attenuation Step Size	最大驻波比 Max VSWR	插入损耗 Insertion Loss(dB)	衰减精度 Attenuation Accuracy (dB)
GKTSX-2-69-8-A6	DC-8	0-69dB in 1dB steps	1.50	≤1.0	±0.5dB (0~9dB) ±1.0dB(10~19dB) ±1.5dB(20~49dB) ±2.0dB(50~69dB)
GKTSX-2-69-12.4-A6	DC-12.4		1.60	≤1.25	±0.8dB (0~9dB) ±1.0dB(10~19dB) ±1.5dB(20~49dB) ±2.0dB(50~69dB)
GKTSX-2-69-18-A6	DC-18		1.75	≤1.5	±0.8dB (0~9dB) ±1.0dB(10~19dB) ±1.5dB(20~49dB) ±2.0dB(50~69dB)
GKTSX-2-99-8-A6	DC-8	0-99dB in 1dB steps	1.50	≤1.0	±0.5dB (0~9dB) ±1.0dB(10~19dB) ±1.5dB(20~49dB) ±2.0dB(50~69dB) ±2.5dB or 3.5%(70~99dB)
GKTSX-2-99-12.4-A6	DC-12.4		1.60	≤1.25	±0.8dB (0~9dB) ±1.0dB(10~19dB) ±1.5dB(20~49dB) ±2.0dB(50~69dB) ±2.5dB or 3.5%(70~99dB)
GKTSX-2-99-18-A6	DC-18		1.75	≤1.5	±0.8dB (0~9dB) ±1.0dB(10~19dB) ±1.5dB(20~49dB) ±2.0dB(50~69dB) ±2.5dB or 3.5%(70~99dB)

※ X对应功率(X refer to average power in W)

* 外型尺寸公差±5% (Dimensions Tolerance ±5%)

**若非特别说明,外形尺寸和技术指标对应N型连接器(Dimensions and specifications refer to connector type N unless otherwise specified.)

***可按客户要求订制特殊规格衰减量和精度(Custom designs available for other special attenuation value & accuracy.)

俊科[®] SHX 连续可调/步进衰减器 (Variable/Step Attenuators)

型号(Model Number): GKTSX-2-XX-18-A7-B
 特性阻抗(Impedance): 50Ω
 平均功率(Average Power): 2W,10W
 峰值功率(Peak Power):200W(5μs pulse width with 0.5% duty cycle)
 连接器形式(Connector Type): N(M,F), SMA(F,F), 3.5mm(F,F)
 外型尺寸(Dimensions): 2W:115×106×83mm ;10W:126×106×83mm
 重量(Weight): 2W:985~1039g 10W:1021g~1075g
 温度范围(Tem. Range): 0°C~+54°C



型号 Model Number	频率范围 Frequency Range(GHz)	衰减步级 Attenuation Step Size	最大驻波比 Max VSWR	插入损耗 Insertion Loss(dB)	衰减精度 Attenuation Accuracy(dB)
GKTS2-2-69-8-A7-B	DC-8	0-69dB in 1dB steps	1.50	≤1.25	±0.5dB(0~9dB)(DC-8G) ±0.8dB(0~9dB)(>8G) ±1.0dB(10~19dB) ±1.5dB(20~49dB) ±2.0dB(50~69dB)
GKTS2-2-69-12.4-A7-B	DC-12.4		1.50	≤1.50	
GKTS2-2-69-18-A7-B	DC-18		1.75	≤1.50	
GKTS2-2-69-26.5-A7-B	DC-26.5		1.85	≤2.0	
GKTS2-2-99-8-A7-B	DC-8	0-99dB in 1dB steps	1.50	≤1.25	±0.5dB(0~9dB)(DC-8G) ±0.8dB(0~9dB)(>8G) ±1.0dB(10~19dB) ±1.5dB(20~49dB) ±2.0dB(50~69dB)
GKTS2-2-99-12.4-A7-B	DC-12.4		1.50	≤1.50	
GKTS2-2-99-18-A7-B	DC-18		1.75	≤1.50	±2.5dB or 3.5%(70~99dB)
GKTS10-2-69-8-A7-B	DC-8	0-69dB in 1dB steps	1.50	≤1.25	±0.5dB(0~9dB)(DC-8G) ±0.8dB(0~9dB)(>8G) ±1.0dB(10~19dB) ±1.5dB(20~49dB) ±2.0dB(50~69dB)
GKTS10-2-69-12.4-A7-B	DC-12.4		1.60	≤1.50	
GKTS10-2-69-18-A7-B	DC-18		1.75	≤1.75	
GKTS10-2-99-8-A7-B	0.1-8	0-99dB in 1dB steps	1.50	≤1.25	±0.5dB(0~9dB)(DC-8G) ±0.8dB(0~9dB)(>8G) ±1.0dB(10~19dB) ±1.5dB(20~49dB) ±2.0dB(50~69dB)
GKTS10-2-99-12.4-A7-B	0.1-12.4		1.60	≤1.50	
GKTS10-2-99-18-A7-B	0.1-18		1.75	≤1.75	

型号(Model Number): GKTSX-1-XX-28-A8-B
 特性阻抗(Impedance): 50Ω
 平均功率(Average Power): 2W,10W,25W
 峰值功率(Peak Power): 200W(5μs pulse width with 2% duty cycle)
 连接器形式(Connector Type): 3.5mm(F,F),SMA(F,F)(DC-18GHz)
 外型尺寸(Dimensions):2W:60-90dB 10W:1-90dB: 62×106×83mm
 2W:1-9dB 25W:70dB: 66×106×83mm
 重量(Weight): 525g; 520g
 温度范围(Tem. Range): 0°C~+54°C



型号 Model Number	频率范围 Frequency Range(GHz)	衰减步级 Attenuation Step Size	最大驻波比 Max VSWR	插入损耗 Insertion Loss(dB)	衰减精度 Attenuation Accuracy (dB)
GKTS2-1-9-18-A8-B	DC-18	0-9dB in 1dB steps	1.60	≤1.0	±0.8dB
GKTS2-1-9-26.5-A8-B	DC-26.5		1.70	≤1.8	±1.0dB
GKTS2-1-70-18-A8-B	DC-18	0-70dB in 10dB steps	1.60	≤1.0	±1.5dB or 4%
GKTS2-1-60-26.5-A8-B	DC-26.5	0-60dB in 10dB steps	1.75	≤1.8	±1.5dB or 4%
GKTS2-1-90-8-A8-B	0.1-8	0-90dB in 10dB steps	1.60	≤1.0	±1.5dB or 4%
GKTS2-1-90-12.4-A8-B	0.1-12.4				
GKTS2-1-90-18-A8-B	0.1-18				
GKTS10-1-9-18-A8-B	DC-18	0-9dB in 1dB steps	1.60	≤1.0	±0.8dB
GKTS10-1-9-26.5-A8-B	DC-26.5		1.70	≤1.8	±1.0dB
GKTS10-1-9-28-A8-B	DC-28		1.75	≤1.8	±1.5dB
GKTS10-1-70-18-A8-B	DC-18	0-70dB in 10dB steps	1.60	≤1.0	±1.5dB or 4%
GKTS10-1-60-26.5-A8-B	DC-26.5	0-60dB in 10dB steps	1.75	≤1.8	±1.5dB or 4%
GKTS10-1-90-8-A8-B	0.1-8	0-90dB in 10dB steps	1.60	≤1.0	±1.5dB or 4%
GKTS10-1-90-12.4-A8-B	0.1-12.4				
GKTS10-1-90-18-A8-B	0.1-18				
GKTS25-1-70-18-A8-B	DC-18	0-70dB in 10dB steps	1.60	≤1.0	±1.5dB or 4%
GKTS25-1-70-26.5-A8-B	DC-26.5		1.75	≤1.8	
GKTS25-1-70-28-A8-B	DC-28		1.75	≤1.8	±2.0dB or 5%

* 外型尺寸公差±3% (Dimensions Tolerance ±3%)
 **若非特别说明,外形尺寸和技术指标对应N型连接器(Dimensions and specifications refer to connector type N unless otherwise specified.)
 ***可按客户要求订制特殊规格衰减量和精度(Custom designs available for other special attenuation value & accuracy.)