

# **Schedule of supply**

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# 1.List of Goods and Related Services

Package Name: Supply of "ELECTRONICS WORKSHOP HAND TOOLS & EQUIPMENT" of Government Polytechnic (Women), Rehan Distt. Kangra to enhance technical and vocational skills among the youth of Himachal Pradesh. HPSDP-DoTE/WP/19; RFQ No. GPR/19/2022

Package Name: <b>ELECTRONICS WORKSHOP HAND TOOLS &amp; EQUIPMENT</b>								Delivery Time (in days): not more than 180	
Item No	Name of Goods or Related Services	Description	Unit of Measurement	Quantity	Unit Price INR	Total price per item INR	Sales and other taxes per item	Total Price (Including GST)	Remarks (Please mention Page Number of detailed information brochure having make and model no.)
1	2	3	4	5	6	7=5*6	8=7*@GST%	9=7+8	
1	Knife double bladed Electrician- 100mm	Knife double bladed electrician type : Knife double bladed size : 10mm material : stainless steel double bladed locking electricians knife with hard wood handle pocket knife type conforming to ISI or equivalent standard	No	20					
2	Screw driver	screw driver complete set material high grade steel handle transparent green cellulose acetate insulated stem conforming to ISI or equivalent standard	Set	5					
3	De-soldering Gun	De- soldering gun - heat proof nozzle, PVC type 250mm. Power rating = 80W temperature setting range = 250-450°C power cord length = 1.5m - operating voltage : 220-240V - Conforming to ISI or equivalent standards	No	4					

4	Crimping tool (7 in 1 )	Crimping tool (7 in 1) suitable for crimping , cutting and stripping BNC, RJ - 45 CAT 5,CAT 5e and Cat 6 Connectors - operation type: manual material : steel and plastic handle - die less operation- crimping range from 1.5mm <sup>2</sup> to 16 mm <sup>2</sup> conforming to ISI standards	Set	4					
5	Thin connector screw driver insulated handle	Thin connector screw driver - insulated handle type : insulated handle thin connector screw driver : steel or alloy steel. Handle : insulated plastic or fibre or cellulose acetate (CA ) material blades of screw driver shall be plated with nickel chromium or zinc or by any other suitable process. Standard IS : 844 or equivalent standard	No	5					
6	Digital Tachometer	Digital tachometer - suitable for measurement of RPM of motors mixtures pumps fans etc type : contact type digital tachometer hand held - measuring range upto 99999 RPM - resolution : 0.1 RPM < 999.9 RPM; 1 RPM > 1000, RPM - display : preferably LCD or LED display - auto power off facility - conforming to ISI or equivalent standards	No.	5					

7	Screw driver set of min 5 bits ( combination of star and minus ) +1 etc rod	screw driver set of min 5 bits ( combination of star and minus ) +1 etc rod - material : carbon steel , - handle : insulated plastic or fibre or cellulose acetate (CA ) material - conforming to ISI or equivalent .	Set	5					
8	Soldering iron	Soldering iron copper bit 25,35,40,W (1 each )	No	20 Each					
9	Hand plug tools steel	set of hand plug tools steel 8,9, 10 nos	Set	2					
10	Hand vice	Hand Vice 25,50,100,150 nos	No	2 Each					
11	Battery charger	Battery charger 6,12,24,48,volts	No	2 Each					
12	High rate discharge battery cell tester	High rate discharge battery cell tester	No	2					
13	Electrical kettle	Electrical kettle 1& 2 Ltrs	No	2 Each					
14	Electronic Energy Meter 5-30Amp,240V	Electronic Energy Meter 5-30Amp,240V	No	2					
15	Electric Heater 1000,2000 watt	Electric Heater 1000,2000 watt	No	2					
16	Heat Convector	Heat Convector 2000 Watt	No	2					
17	Electric Oven	Electric Oven 30-250 degree temperature	No	1					
18	Multimeter Analog Type	Multimeter Analog Type	No	10					
19	Ampere Meter	Ampere Meter 0- 40 Amp	No	5					
20	Volt meter 0- 500 Volts	Volt meter 0- 500 Volts	No	5					
21	Latest complete hand tool kit	Latest complete hand tool kit ( for General workshop )	Set	5					
22	Insulation tester	Insulation tester Digital &	No	2 Each					

	Digital & Analog	Analog							
23	Digital Multimeter	DC voltage 200m /20/200/1000 Volts , AC Voltage 200 M 2/20/200/ 750 Volts DC current : 20 micro /200micro/2m/200m/10 A AC current :20 Micro/200 micro/2m/200m/2/10 A Resistance : 200/2K /20K/200 K/2M/20M ohm Capacity :20 /200 /2000 /20 /200 Frequency : 20 kHz to 2000kHz circuit control : Yes Diodes Control : Yes Frequency : 20 kHz to 2000kHz	No	10					
24	CRO	CRO Bandwidth AC 10 Hz ~ 30 MHz (-3 db ) DC ~ 30 MHz Y Deflection high milli volt / div ~ 20 V Per/Div Max In 400 V (DC + AC p-p ) Sweep mode Auto , Trig ,Lock ,single Sweep rate Frequency Response AC 10Hz ~1 MHz - 3 db Dc 0 ~1 MHz -3db min IN level TTL level Waveform :Sq Sine Wave Z Max In 400 Volts Frequency 1KHz $\pm$ 2% Amplitude 0.5 V p-p	No	5					
25	Function generator	no. of channels :2 , waveform : Sine, Sq, Pulse, ramp, triangle, Sine Wave Freq range : 1 Micro Hz - 250 MHz , total harmonic distortion :0.5%,	No	5					

		<p>Sq. Wave Frequency range 1 Micro Hz to 120 MHz, Rise / fall time <math>\leq 2.5</math> , Ramp wave : Freq. Range 1 Micro Hz - 5 MHz , Pulse Freq. Range 1 micro Hz to 50 MHz Amplitude <math>\leq 100</math> MHz : 5 Vp-p: accuracy : <math>\pm 1</math> % of setting <math>\pm 1</math> milli volt p-p Resolution 0.1 milli volt , modulation : AM,FM,PM,ASK,FSK,PS K Power Voltage 240 V , 50 Hz Display : TFT LCD type</p>							
26	Signal Generator	<p>Specifications for RF Signal Generator  Type RF Signal Generator  Frequency Range 9 KHz to 3 GHz  Frequency Resolution 0.1 Hz  Ageing Rate For Reference Frequency (As Declared By OEM)  Less than 2 PPM/Year  Temperature Stability For Reference Frequency  Less than 2 PPM  SSB Phase Noise At 1GHz,on 20KHz Offset (dBc/Hz)  less than -95 dBc  Harmonics At 3 GHz Level At 0 DBm  less than -30 dBc  Non Harmonics (&gt;10 KHz Carrier Offset)  less than -50 dBc  Reverse Power Protection</p>	No	5					

		2Watt Minimum Output Level - 120dBm Maximum Output Level +13dBm Output Level Resolution 0.1dB VSWR On All Operating Frequencies 2 Memory (Minimum Storage Settings)100 Amplitude Modulation (AM) Operating Modes Internal &External Minimum Amplitude Modulation Frequency (3 DB),F>100KHz 20Hz Maximum Amplitude Modulation Frequency (3 DB),F>100KHz 20KHz Modulation Depth 0 to 100% Resolution Of AM 0.1 Frequency Modulation (FM) Operating Modes Internal &External Minimum Frequency Modulation Frequency (-3 DB)Standard 20Maximum Frequency Modulation Frequency (-3 DB)Standard80 Minimum Frequency Deviation 0.02 Maximum Frequency Deviation 100KHz. Resolution Of FM 1% min, 1Hz Phase Modulation						
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	<p>Operating Mode Internal &amp; External Minimum Phase Deviation 0 Radians Maximum Phase Deviation 10 Radians Resolution Of Phase</p> <p>Modulation 1% Internal Modulation Generator For AM/FM/PM 20 Hz to 80 KHz with resolution of 0.1 Hz Pulse Modulation Operating Modes Internal &amp; External On/Off Ratio &gt;80 dB Minimum Pulse Width 10000ns Input Level TTL RF Digital Sweep Range And Width 9 KHz to 3 GHz RF Digital Sweep Time Range 500 ms to 10 sec Range Of Modulating Signal (Narrow Mode) 20Hz to 80KHz Interface Available USB/IEEE 488, RS 232 Standard Accessories (To Be Supplied) Power Cable, N(M) to BNC(F) Adpt, BNC M to BNC M Coaxial Cable, 2 amp fuse, GPIB Cable, DC Cable, 50 to 75 OHM Adpt, Dust Cover, User</p>							
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		hand book Power Requirements 230 V +/-10% AC, 50 Hz +/-3% Operating Temperature Range 0 to 45 Degree C Degree C Operating Humidity (RH) Should withstand 95% RH at 45 Degree C							
27	Soldering Station	DISPLAY METHOD LED DIGITAL DISPLAY INPUT VOLTAGE AC 240 +- 10% 50HZ POWER 60W OUTPUT AC 24W HEATER CERAMIC HEATER TEMPERATURE RANGE 200 C ~ 480 C ( 392 F ~ 896 F )	No	10					
28	DC Regulated Power supply dual output	O/P Voltage – 0~30V O/p Current – 0~5A FIXED O/P – 5V,2A Standard Accessories – Soft Carrying case and Manual Dimension – 132(H) x 55(W) x 168(D) mm	No	5					
29	DSO(Digital Storage Oscilloscope )	1 Isolated Channels 4 2 a) Sampling / Channel 2.0 G samples/s minimum b) Bandwidth 200 MHz or more 3 Isolation Float Voltage 600 Vrms Min (reference to earth) CAT-II 4 Isolation Float Voltage 1200 Vrms Min (channel reference to channel)	No	1					

		reference) CAT-II 5 Maximum Input Voltage 300 Vrms (tip to reference of standard passive probes), 1000 Vrms (tip to reference of high voltage passive probe) CAT-II 6 Vertical Resolution At Least 8 Bits 7 Record Length 2500 points 8 DC Gain Accuracy $\pm 3\%$ 9 Horizontal Accuracy $\pm 50$ ppm 10 Linear dynamic range $\pm 5V$ 11 Sensitivity 2 mV to 200 mV per div. $\pm$ 2V; >200mV to 5V/div. $\pm$ 50V 12 Time/Division Range 2.5 ns to 50s/division 13 Horizontal Zoom Trigger modes Auto, Normal, Single shot Source All four channels and External Edge (rising, falling) level, pos/neg slope on any channel							
30	PCB Drilling Machine	Spindle Speed: 6000- 30000rpm (variable, adjustable in 7 step increments) Base Plate Width: 120mm Throat Depth: 120mm Vertical Travel: 21mm Motor: 135W Weight: TBC Dimensions: 120mm x 120mm (stand base plate) Power Requirements: 240V, 13A Socket Warranty: 1 Year Return to Base (UK Mainland) 1 Year Return and Collect (Elsewhere)		2					

31	PA System	Professional EON one Compact- All-In-One Battery Powered portable PA with Professional Grade mixer swappable battery ,fast battery charging, smart feature to lower music volume when speech input detected	Set	1					
32	LCD	LCD 55"	No	1					
33	Audio oscillator	freq. range - 20 Hz to 20 KHz in 4 decades range ,Accuracy- $\pm 2\%$ , $\pm 1$ Hz, wave form- sine and sq wave ,o/p voltage- 0-10 volts continuously variable/p impedance - 600 ohms, distortion - less than 1%	No	5					
Total :									

Grand Total	Total price per item (INR)(7= 5*6)	Total Price (Including GST) (9=7+8)

**Grand Total (Without Tax) in Words: -**

## 2. Delivery and Completion Schedule

The delivery period shall start as of date of Signing the Contract

Item No	Description of Goods or Related Services	Delivery Schedule (Duration)	Location	Required Arrival Date of Goods or Completion Date for Related Services
	<b>Package Name: - ELECTRONICS WORKSHOP HAND TOOLS &amp; EQUIPMENT</b> <b>Package No.: - HPSPD-DOTE/WP/19</b>	Within 90 Days from the Signing of the contract.	<b>Government Polytechnic(Women), Rehan District-Kangra, Himachal Pradesh</b>	Within 90 Days from the Signing of the contract.

### 3. Technical Specifications

**Package Name: - *ELECTRONICS WORKSHOP HAND TOOLS & EQUIPMENT***

**Installation & Training of all items at: Government Polytechnic (women), Rehan Distt. Kangra HP in Himachal Pradesh**

Item No.	Name of Goods or Related Services	Technical Specifications of Item and/or Bureau of Indian Standards (BIS) (if applicable) reference	Features	Accessories	Spare parts	Documents	Warranty of Equipment/parts
1.	Knife double bladed Electrician-100mm	Knife double bladed electrician type : Knife double bladed size : 10mm material : stainless steel double bladed locking electricians knife with hard wood handle pocket knife type conforming to ISI or equivalent standard	Standard	Dust protection and Storage Cover	Standard	Standard	
2.	Screw driver	screw driver complete set material high grade steel handle transparent green cellulose acetate insulated stem conforming to ISI or equivalent standard	Hard ended and tempered comfortable grip non flammable and non affected by grease oil.	Dust protection and Storage Cover	Standard	warranty certificates operating manual/user manual, contact detail of local service providers	
3.	De-soldering Gun	De- soldering gun - heat proof nozzle, PVC type 250mm. Power rating = 80W temperature setting range = 250-450°C power cord length = 1.5m - operating voltage : 220-240V - Conforming to ISI or equivalent standards	Standard	Nozzle cleaning kit heat resistant pipe/stand. Dust protect iron ion and storage cover/ case. Other standard accessories	1 spare nozzle- other standard spare parts	Warranty certificates operating manual/user manual, contact detail of local service providers	
4.	Crimping tool (7 in 1 )	Crimping tool (7 in 1) suitable for crimping , cutting and stripping BNC, RJ - 45 CAT 5,CAT 5e and Cat 6 Connectors - operation type: manual material : steel and plastic handle – die less operation-	Easy to handle compatible die types : BNC,RJ-45	Dust protect iron ion and storage cover/ case	Standard	Warranty certificates operating manual/user manual, contact	

		crimping range from 1.5mm <sup>2</sup> to 16 mm <sup>2</sup> conforming to ISI standards	MX CAT 5, CAT 5e & CAT 6 connectors this jaw is made from EN 19 for going flat to accommodate to all length of end sleeves- handle made from spring steel / rapper grips provided ergonomic handling			detail of local service providers	
5.	Thin connector screw driver insulated handle	Thin connector screw driver - insulated handle type : insulated handle thin connector screw driver : steel or alloy steel. Handle : insulated plastic or fibre or cellulose acetate (CA ) material blades of screw driver shall be plated with nickel chromium or zinc or by any other suitable process. Standard IS : 844 or equivalent standard	The Handle shall be provided with proper serrations so that the handles do not slip during usage. the handle shall be finished smooth and shall be convenient for holding- the screw driver point shall be ground	Dust protect iron ion and storage cover/ case	Standard	Warranty certificates operating manual/user manual, contact detail of local service providers	

6.	Digital Tachometer	Digital tachometer -suitable for measurement of RPM of motors mixtures pumps fans etc type : contact type digital tachometer hand held - measuring range upto 99999 RPM - resolution : 0.1 RPM < 999.9 RPM; 1 RPM > 1000, RPM - display : preferably LCD or LED display - auto power off facility - conforming to ISI or equivalent standards	memory facility to retain measured value, portable, light weight - moulded body- anti slippage body type- other standard features	Dust protect iron ion and storage cover/ case	Standard manual / user manual - contact details of local service provider	warranty certificates operating manual/user manual, contact detail of local service providers	
7.	Screw driver set of min 5 bits ( combination of star and minus ) +1 etc rod	screw driver set of min 5 bits ( combination of star and minus ) +1 etc rod - material : carbon steel , - handle : insulated plastic or fibre or cellulose acetate (CA ) material - conforming to ISI or equivalent .	Standard	Standard	Standard	warranty certificates operating manual/user manual, contact detail of local service providers	
8.	Soldering iron	set of soldering iron copper bit 25,35,40,W(1 each )	Standard	Standard	Standard	Warranty certificates operating manual/user manual, contact detail of local service providers	
9.	Hand plug tools steel	set of hand plug tools steel 8,9, 10 nos	Standard	Standard	Standard	Warranty certificates operating manual/user manual, contact detail of local service providers	

10.	Hand vice	set hand vice 25,50,100,150 nos	Standard	Standard	Standard manual / user manual - contact details of local service provider	Warranty certificates operating manual/user manual, contact detail of local service providers	
11.	Battery charger	Battery charger 6,12,24,48,volts	Standard	Standard	Standard	Warranty certificates operating manual/user manual, contact detail of local service providers	
12.	High rate discharge battery cell tester	High rate discharge battery cell tester	Standard	Standard	Standard	Warranty certificates operating manual/user manual, contact detail of local service providers	
13.	Electrical kettle	Electrical kettle 1& 2 Ltr	Standard	Standard	Standard	Warranty certificates operating manual/user manual, contact detail of local service providers	
14.	Electronic Energy Meter 5-30Amp,240V	Electronic Energy Meter 5-30Amp,240V	Standard	Standard	Standard	Warranty certificates operating manual/user manual, contact detail of local	



						service providers	
15.	Electric Heater 1000,2000 watt	Electric Heater 1000,2000 watt	Standard	Standard	Standard	Warranty certificates operating manual/user manual, contact detail of local service providers	
16.	Heat Convector	Heat Convector 2000 Watt	Standard	Standard	Standard	Warranty certificates operating manual/user manual, contact detail of local service providers	
17.	Electric Oven	Electric Oven 30-250 degree temperature	Standard	Standard	Standard	Warranty certificates operating manual/user manual, contact detail of local service providers	
18.	Multimeter Analog Type	Multimeter Analog Type	Standard	Standard	Standard manual / user manual - contact details of local service provider	Warranty certificates operating manual/user manual, contact detail of local service providers	
19.	Ampere Meter	Ampere Meter 0- 40 Amp	Standard	Standard	Standard manual / user manual - contact details	Warranty certificates operating manual/user	

					of local service provider	manual, contact detail of local service providers	
20.	Volt meter 0- 500 Volts	Volt meter 0- 500 Volts	Standard	Standard	Standard manual / user manual - contact details of local service provider	Warranty certificates operating manual/user manual, contact detail of local service providers	
21.	Latest complete hand tool kit ( for General workshop )	Latest complete hand tool kit ( for General workshop )	Standard	Standard	Standard manual / user manual - contact details of local service provider	Warranty certificates operating manual/user manual, contact detail of local service providers	
22.	Insulation tester Digital & Analog	Insulation tester Digital & Analog	Standard	Standard	Standard manual / user manual - contact details of local service provider	Warranty certificates operating manual/user manual, contact detail of local service providers	
23.	Digital Multimeter	DC voltage 200m /20/200/1000 Volts , AC Voltage 200 M 2/20/200/ 750 Volts DC current : 20 micro /200micro/2m/200m/10 A AC current :20 Micro/200 micro/2m/200m/2/10 A Resistance : 200/2K /20K/200 K/2M/20 M/200 M ohm Capacity :20 /200 /2000 /20 /200 Frequency : 20 kHz to 2000kHz	Standard	Standard	Standard manual / user manual - contact details of local service provider	Warranty certificates operating manual/user manual, contact detail of local service providers	

		circuit control : Yes Diodes Control : Yes Frequency : 20 kHz to 2000kHz					
24.	CRO	CRO Bandwidth AC 10 Hz ~ 30 MHz (-3 db ) DC ~ 30 MHz Y Detection high milli volt / div ~ 20 V Per/Div Max In 400 V (DC + AC p-p ) Sweep mode Auto , Trig ,Lock ,single Sweep rate Frequency Response AC 10Hz ~1 MHz - 3 db Dc 0 ~1 MHz -3db min IN level TTL level Waveform :Sq Sine Wave Z Max In 400 Volts Frequency 1KHz $\pm$ 2% Amplitude 0.5 V p-p	Standard	Power Chord ,two 2MHz oscilloscope Probes ,Manual	Standard manual / user manual - contact details of local service provider	Warranty certificates operating manual/user manual, contact detail of local service providers	
25.	Function generator	no. of channels :2 , waveform : Sine, Sq, Pulse, ramp, triangle, Sine Wave Freq range : 1 Micro Hz - 250 MHz , total harmonic distortion :0.5%, Sq wave Frequency range 1 Micro Hz to 120 MHz, Rise / fall time $\leq$ 2.5 , Ramp wave : Frq Range 1 Micro Hz - 5 MHz , Pulse Frq Range 1 micro Hz to 50 MHz Amplitude $\leq$ 100 MHz : 5 Vp-p: accuracy : $\pm$ 1 % of setting $\pm$ 1 milli volt p-p Resolution 0.1 milli volt , modulation : AM,FM,PM,ASK,FSK,PSK Power Voltage 240 V , 50 Hz Display : TFT LCD type	Standard	Standard	Standard	warranty certificates operating manual/user manual, contact detail of local service providers	
26.	Signal Generator	Specifications for RF Signal Generator Type RFSignal Generator Frequency Range 9 KHz to 3 GHz	Standard	Standard	Standard	Warranty certificates operating	

		<p>Frequency Resolution 0.1 Hz  Ageing Rate For  Reference Frequency (As Declared By  OEM)  Less than 2 PPM/Year Temperature  Stability For Reference Frequency Less  than 2 PPM  SSB Phase Noise At 1GHz, on 20KHz  Offset  (dBc/Hz) less than -95 dBc Harmonics At  3 GHz Level At 0 DBm less than -30 dBc  Non Harmonics (&gt;10 KHz Carrier Offset)  less than -50 dBc Reverse Power  Protection  2 Watt Minimum Output Level -120 dBm  Maximum Output Level +13 dBm  Output Level Resolution 0.1 dB  VSWR On All Operating Frequencies  2 Memory (Minimum Storage Settings)  100 Amplitude Modulation (AM) Operating  Modes Internal &amp; External Minimum  Amplitude Modulation Frequency (3DB), F  &gt;100 KHz 20 Hz Maximum Amplitude  Modulation Frequency (3 DB), F &gt;100  KHz  20 KHz Modulation Depth 0 to 100 %  Resolution Of AM 0.1 Frequency  Modulation  (FM) Operating Modes Internal &amp; External  Minimum Frequency Modulation  Frequency (-3 DB) Standard 20 Maximum  Frequency  Modulation Frequency (-3 DB) Standard  80 Minimum Frequency Deviation 0.02  Maximum Frequency Deviation 100 KHz  Resolution Of FM 1% min, 1 Hz Phase  Modulation Operating Mode Internal  &amp; External Minimum Phase Deviation</p>				<p>manual/user  manual, contact  detail of local  service  providers</p>	
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		0 Radians Maximum Phase Deviation 10 Radians Resolution Of Phase Modulation 1 % Internal Modulation Generator For AM/FM/PM 20 Hz to 80 KHz with resolution of 0.1 Hz Pulse Modulation Operating Modes Internal & External On/Off Ratio >80 dB dB Minimum Pulse Width 10000 ns Input Level TTL RF Digital Sweep Range And Width 9 KHz to 3 GHz RF Digital Sweep Time Range 500 ms to 10 sec Range Of Modulating Signal (Narrow Mode) 20Hz to 80 KHz Interface Available USB/IEEE 488, RS 232 Standard Accessories (To Be Supplied) Powe Cable, N(M) to BNC(F) Adpt, BNC M to BNC M Coaxial Cable, 2 amp fuse, GPIB Cable, DC Cable, 50 to 75 OHM Adpt, Dust Cover, User hand book Power Requirements 230 V +/-10% AC, 50 Hz +/- 3% Operating Temperature Range 0 to 45 Degree C Degree C Operating Humidity (RH) Should withstand 95% RH at 45 Degree C					
27.	Soldering Station	DISPLAY METHOD                      LED DIGITAL DISPLAY INPUT VOLTAGE                      AC 240 +/- 10% 50HZ POWER                                      60W OUTPUT                                      AC 24W HEATER CERAMIC HEATER TEMPERATURE RANGE 200 C ~ 480 C ( 392 F ~ 896 F )	Standard	Standard	Standard	Warranty certificates operating manual/user manual, contact detail of local service providers	

28.	DC Regulated Power supply dual output	O/P Voltage - 0~30V O/p Current - 0~5A FIXED O/P - 5V,2A Standard Accessories - Soft Carrying case and Manual Dimension - 132(H) x 55(W) x 168(D) mm	Standard	Standard	Standard	Warranty certificates operating manual/user manual,contact detail of local service providers	
29.	DSO(Digital Storage Oscilloscope )	1 Isolated Channels 4 2 a) Sampling / Channel 2.0 G samples/s minimum b) Bandwidth 200 MHz or more 3 Isolation Float Voltage 600 Vrms Min (reference to earth) CAT-II 4 Isolation Float Voltage 1200 Vrms Min (channel reference to channel reference) CAT-II 5 Maximum Input Voltage 300 Vrms (tip to reference of standard passive probes), 1000 Vrms (tip to reference of high voltage passive probe) CAT-II 6 Vertical Resolution At Least 8 Bits 7 Record Length 2500 points 8 DC Gain Accuracy $\pm 3\%$ 9 Horizontal Accuracy $\pm 50$ ppm 10 Linear dynamic range $\pm 5V$ 11 Sensitivity 2 mV to 200 mV per div. $\pm 2V$ ; >200mV to 5V/div. $\pm 50V$ 12 Time/Division Range 2.5 ns to 50s/division 13 Horizontal Zoom Trigger Trigger modes Auto, Normal, Single shot Source All four channels and External Edge (rising, falling) level, pos/neg slope on any channel	Standard	Standard	Standard	Warranty certificates operating manual/user manual,contact detail of local service providers	
30.	PCB Drilling Machine	Spindle Speed: 6000-30000rpm (variable, adjustable in 7 step increments) Base Plate Width: 120mm Throat Depth: 120mm	Standard	Standard	Standard	Warranty certificates operating manual/user manual,contact	

		Vertical Travel: 21mm Motor: 135W Weight: TBC Dimensions: 120mm x 120mm (stand baseplate) Power Requirements: 240V, 13A Socket Warranty: 1 Year Return to Base (UK Mainland) 1 Year Return and Collect (Elsewhere)				detail of local service providers	
31.	PA system	Professional EON one Compact- All-In-One Battery Powered portable PA with Professional Grade mixer swapable battery ,fast battery charging ,smart feature to lower music volume when speech input detected	Standard	Aux ,phantom power support and condenser mic and other standard accessories	Standard	Warranty certificates operating manual/user manual,contact detail of local service providers	
32.	LCD	LCD 55"	Standard		Standard		
33.	Audio oscillator	frq range - 20 Hz to 20 KHz in 4 decades range ,Accuracy- $\pm 2\%$ , $\pm 1$ Hz, wave form- sine and sq wave, o/p voltage- 0-10 volts continuously variable o/p impedance - 600 ohms, distortion - less than 1%	Standard	Aux ,phantom power support and condenser mic and other standard accessories	Standard	Warranty certificates operating manual/user manual,contact detail of local service providers	

## **4. Drawings**

*Not Applicable*