(붙임 3)

구 매 규 격 서

품 목 번 호	4111363801	정부물품목록번호 (16자리)	41113638-	수량/단위	6 / set
품 명	한글	디지털 오실로스코프			
	영문	Digital Oscilloscope			

1. 특징

1. Number of analog outputs : 4 channel
2. Resolution : 8 bits
3. Bandwidth : 200MHz
4. Waveform memory : 5 M record length on all channels
5. Sample rate : 2GSa/s

2. 세부규격

1. Operating system : Microsoft® Embedded Linux
2. Standard trigger types :
   - Edge, Pulse Width, Runt
3. Horizontal system Time base range : 2 ns/div ~ 100 s/div
4. Acquisition system : Sample, Peak Detect, Averaging, High Res, Roll mode
5. Standard analysis
   - Cursors: Time, amplitude and screen
   - Measurements: 32 automated measurements
   - FFT function for quick waveform analysis

6 Display
   - 9-inch WVGA color display

7. Connectivity :
   - USB 2.0 host port on the front panel for quick and easy data storage
   - USB 2.0 device port on rear panel for easy connection to a PC
   - 10/100BASE-T Ethernet port for remote control over LAN
   - Wi-Fi interface provides wireless communications capability support

8 Dimensions :
   - Height: 174.9 mm (6.89 in) / Width: 372.4 mm (14.66 in) / Depth: 103.3 mm (4.07 in)

9. Weight: :
   - 2.62 kg (5.8 lbs.), standalone instrument.
   - 5.1 kg (11.2 lbs.), when packaged for domestic shipment

3. 표준 및 부속품

- 200MHz Passive Probe X 4EA
- Compliance and Safety Instructions
- Programmer manual
- Power cord
- Calibration certificate documenting traceability to National Metrology Institute(s) and ISO9001 quality system registration

4. 선택부속 또는 추천부속품

5. 용도 및 AS기간 등

- Warranty : 5 year standard
- 용도 : 시간의 흐름에 따른 전압의 변화를 보는 장비

(붙임 3)

구 매 규 격 서

품 목 번 호	3912100401	정부물품목록번호 (16자리)	39121004-	수량/단위	6 / set
품 명	한글	전력공급장치			
	영문	DC Power Supply			

1. 특징

1. DC OUTPUT RATING :
- Channel 1/2 : Voltage 0 - 30V, Current 0 - 3A
- Channel 3 : Voltage 0 - 5V, Current 0 - 3A
2. MAXIMUM POWER : 195W

2. 세부규격

1. LOAD REGULATION :
 - Voltage : ≤0.02% + 4mV
 - Current : ≤0.2% + 3mA
2. LINE REGULATION :
 - Voltage : ≤0.02% + 4mV
 - Current : ≤0.2% + 3mA
3. RIPPLE AND NOISE (20Hz-20MHz) :
 - Voltage : ≤1mVrms/≤5mVp-p
 - Current : ≤6mArms
4. SETTING RESOLUTION :
 - Voltage : 10mV
 - Current : 1mA
5. SETTING ACCURACY :
 - Voltage : ≤0.06% + 20mV
 - Current : ≤0.2% + 10mA
6. READBACK RESOLUTION :
 - Voltage : 10mV
 - Current : 1mA
7. READBACK ACCURACY :
 - Voltage : ≤0.06% + 20mV
 - Current : ≤0.2% + 10mA
8. MEMORY : 30 setup memory locations.
9. OUTPUT TIMER RANGE : 0.1s to 99999.9s.
10. DISPLAY : Vacuum fluorescent display.
11. OVERTEMPERATURE PROTECTION : If the internal temperature of the supply exceeds 85°C, the supply will automatically turn off.
12. EMC COMPLIANCE : Conforms to European Union EMC Directive.
13. SAFETY COMPLIANCE : Conforms to European Union Low Voltage Directive.
14. MAXIMUM POWER CONSUMPTION : 750VA.

3. 표준 및 부속품

1. Documentation CD with User Manual
2. Certificate of Calibration
3. Power Cord

4. 선택부속 또는 추천부속품

5. 용도 및 AS기간 등

- Warranty : 3 year standard
- 용도 : 전자부품을 구동시키기 위한 DC전원을 인가해주는 장비

(붙임 3)

구 매 규 격 서

품 목 번 호	4111363001	정부물품목록번호 (16자리)	41113630-	수량/단위	6 / set
품 명	한글	디지털 멀티미터			
	영문	Digital Multimeter			

1. 특징

1. Digit : 6.5Digit
2. Measurement Capabilities
 - DC Volatge : 100nV ~ 1010V
 - AC Voltage : 100nV ~ 750Vrms
 - DC Current : 10pA ~ 10.1A
 - AC Currrent : 100pA ~ 10.1A
 - Resistance (2-wire) : 10 μΩ ~ 120MΩ
 - Resistance (4-wire) : 1 μΩ ~ 120 MΩ
 - Capacitance : 0.1 pF ~ 120 μF

2. 세부규격

1. Interface : LAN/LXI interface, USB 2.0
2. Accuracy
 - DC volts : 100nV (at 100mV Range)
 - Resistance : 1 μΩ (at 1Ω^6 Range)
 - DC current : 10pA (at 10uA Range)
 - Capacitance : 0.1pF (at 1nF Range)
 - Diode : 10uV (at 10V Range)
3. Internal Memory
 - Maximum Reading Memory : Up to 7 million readings with standard buffer
 - Internal (non-volatile) Memory for Saved Scripts and Scan Configurations :
 - 6 MB, enables hundreds of scan configurations or TSP scripts to be saved in non-volatile memory
 - TSP 기능을 통한 원격제어 및 분기, 반복, 계산 등의 명령이 가능해야함
 - 호스트 PC 제어 없이도 장비 내부의 메모리에 저장된 테스트 스크립트의 단독 수행이 가능해야함
4. Size : 224.0 mm (8.82 in.) × 107.2 mm (4.22 in) × 387.4 mm (15.25 in.)
5. Weight : 4.54 kg (10.0 lb.)
6. Language : SCPI, TSP, Emulation Modes

3. 표준 및 부속품

1. 1757 (Pair, General Purpose Test Lead Set, 1000 V Cat II)
2. USB-B-1 (USB Cable, Type A to Type B, 1 m (3.3 ft.)
3. Traceable Calibration Certificate

4. 선택부속 또는 추천부속품

5. 용도 및 AS기간 등

- Warranty : 3 year standard
- 용도 : 전자부품이 동작할 때 다양한 파라미터를 측정하기 위한 장비

(붙임 3)

구 매 규 격 서

품 목 번 호	4111532301	정부물품목록번호 (16자리)	41115323-	수량/단위	6 / set
품 명	한글	함수발생기			
	영문	Function generator			

1. 특징

1. 2CH, 1 Hz to 25MHz Sine waveform, 12.5MHz μ Square waveform
2. 14bit vertical resolution
3. Amplitude 1mVp-p to 10Vp-p into 50 Ω loads (10Vp-p at 25MHz)
4. 3.95-inch color TFT display

2. 세부규격

1. Sine, Square, Ramp, Pulse, Noise, DC, Arbitrary waveform
2. Sine waves
 (1) Range : 1μHz to 25MHz
 (2) Sine wave in burst mode : 2mHz to 25MHz
3. Square waves
 (1) Range : 1μHz to 12.5MHz
 (2) Rise/fall time, typical : <12ns
4. Mode : Continuous, sweeping, burst, and modulation (AM, FM, PM, ASK, FSK, PSK, PWM)
5. 64-MByte internal non-volatile memory for arbitrary waveform storage
6. Standard USB host/device for memory expansion and remote control
7. Free ArbExpress makes user defined waveforms editing extremely easy through an external USB memory stick
8. Compatible with TekSmartLab™ for easy teaching and learning
9. Physical characteristics
 (1) Dimensions (W, H, D) : 230 × 110 × 306 mm (9.0 × 4.4 × 12.1 in)
 (2) Weight : 3.4 kg (7.5 lbs) - Net / 4.7 kg (10.3 lbs) - Shipping

3. 표준 및 부속품

1. Arbitrary/Function Generator Safety and Compliance Instructions; printed document
2. Documentation CD containing the following PDF documents:
 (1) Arbitrary/Function Generators Quick Start User Manual, English
 (2) Arbitrary/Function Generators Quick Start User Manual, Simplified Chinese
 (3) Arbitrary/Function Generators Programmer Manual
 (4) Arbitrary/Function Generators Specifications and Performance Verification Manual
3. Packing list
4. Power cord
5. Calibration certificate
6. USB cable x 1, Type A to Type B
7. BNC cable x 2
8. Fuse, cartridge; 5 x 20 mm, 0.5 A, 250 V, time-delay
9. Fuse, cartridge; 5 x 20 mm, 1 A, 250 V, time-delay
10. Calibration certificate documenting traceability to National Metrology Institute(s) and ISO9001 quality system registration

4. 선택부속 또는 추천부속품

5. 용도 및 AS기간 등

- Warranty : 5 year standard
- 용도 : 전자부품의 동작 특성을 이해하기 위한 다양한 신호를 공급해주는 장비