

Peripherals Brochure

V1.1

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DCC&DMC

Overview

The Data Manager Console (DMC) program is used to set up the project parameters, including the IGU-16 recording parameters, before deployment. The Data Collector Console (DCC) program provides the interface with the IGU-16 units, for programming and offload. After the data has been offloaded by DCC, DMC is used to generate the output files in SEG-D or SEG-Y format. The DMC and DCC programs run on High-Speed servers that each have an external 120 TB RAID attached.



Specifications

Parameter	Specifications
Server	Dell R740
CPU	Intel®Xeon®Sliver 4114X2
Disk1 and Disk2	Raid1-2TB per disk-contains the Operating System
Disk Array	Dell md1400 (Raid6,12*10TB) -for data Storage

Data Harvesting Rack (DHR)

Overview

The Data Harvesting Rack (DHR) is used to program the IGU-16 and offload the seismic data, including QC data. Each DHR has 32 slots. The average downloading speed of each slot is 20MB/s.



Specifications

Parameter	Specifications
Dimension(LxWxD)	1660x650x300 mm
Weight	90 kg
Offloading Time	<3.25 hours(@3000 CHs@20 days @ 2ms in)
Power Supply	100-240 V, 50/60 Hz
Rated Power	200 W

Universal Data Harvesting Rack (DHR)

Overview

The Universal Data Harvesting Rack (DHR) is used to program the IGU-16HR-IES and offload data. Each Universal DHR has 32 slots. The average downloading speed of each slot is 20MB/s. The Universal DHR is compatible with all IGU-16 series products.



Specifications

Parameter	Specifications
Dimension(LxWxD)	1660x730x300 mm
Weight	94.5 kg
Offloading Time	<3.25 hours(@3000CHs@20days@2ms in)
Power Supply	100-240 V, 50/60 Hz
Rated Power	200 W

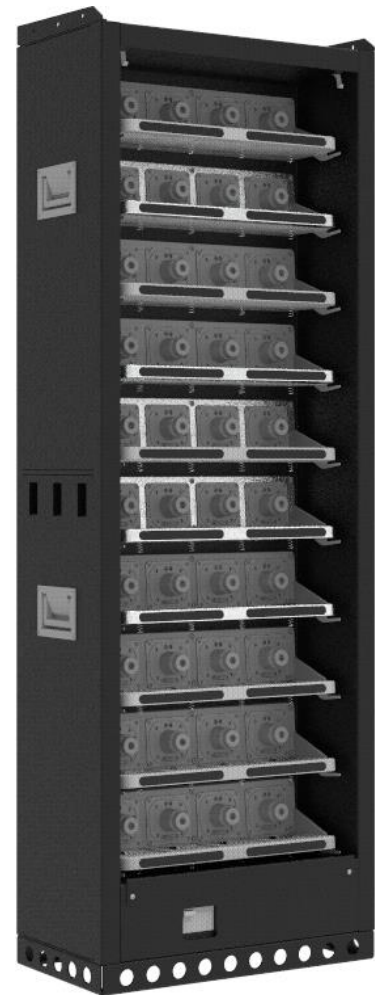
Battery Charging Rack

(BCR-40C)

Overview

The Battery Charging Rack is for charging the IGU-16 Batteries. There are 40 slots on each BCR, each with an LED indicator to show that slot's charging status.

It suit for IGU-16 series and other external high-capacity battery pack charging.



Specifications

Parameter	Specifications
Dimension(LxWxD)	1685X600X320 mm
Weight	125 kg
Layout	10 rows,4 chargers in each row
Maximum Charging Current	2.0 Amps
Power Supply	100-240 V, 50/60 Hz
Rated Power	1920W
Charging Mode	<90% fast charge
	>90% trickle charge
Charging Time	<3.25 hours from fully discharged(IGU-16, IGU-16HR, IER-1 battery)
	<6 hours from fully discharged (IGU-16HR 3C battery)
	<24 hours from fully discharged (External high-capacity battery)
Charging Temperature	+3℃ - +45℃

Battery Charging Rack (BCR)

Overview

The Battery Charging Rack is for charging the IGU-16 Batteries. There are 48 slots on each BCR, each with an LED indicator to show that slot's charging status.

Specifications



Parameter	Specifications
Dimension(LxWxD)	1827x600x320 mm
Weight	130 kg
Layout	12 rows, 4 chargers in each row
Maximum Charging Current	2.4 Amps
Power Supply	100-240 V, 50/60 Hz
Rated Power	1920 W
Charging Mode	<90% fast charge
	>90% trickle charge
Charging Time	<3.25 hours from fully discharged(IGU-16, IGU-16HR, IER-1 battery)
	<6 hours from fully discharged (IGU-16HR 3C battery)
	<24 hours from fully discharged (External high-capacity battery)
Charging Temperature	+3°C - +45°C

Battery Charging Rack (BCR)

(IAU-19)

Overview

The Battery Charging Rack is for charging the IAU-19 Batteries. There are 48 slots on each BCR, each with an LED indicator to show that slot's charging status.

Note: When the IAU-19HR battery temperature exceeds the charging range, the device will automatically stop till the battery temperature returns to the charging range.



Specifications

Parameter	Specifications
Dimension(LxWxD)	650x320x1810 mm
Weight	140 kg
Layout	12 rows,4-slot/row
Maximum Charging Current	2.4 Amps
Power Supply	100-240 V, 50/60 Hz
Rated Power	1920 W
Charging Mode	<90% fast charge
	>90% trickle charge
Charging Time	<3 hours
Indicator Light	LED light
Working Humidity	20%~90% RH,non-condensing
Charging Temperature	+3℃ - +45℃

Portable Data Harvesting Rack

Overview

The Portable Data Harvesting Rack (DHR) is used to program the IGU-16HR and offload data. Each Portable DHR has 16 slots. The average downloading speed of each slot is 20MB/s.



Specifications

Parameter	Specifications
Dimension(LxWxD)	625x500x366 mm
Weight	21.5 kg
Layout	16 harvesting slots(4X4)
Power Supply	100-240 V, 50/60 Hz
Rated Power	100 W
Download Speed	20 MB/s for each slot

Portable Battery Charging Rack

Overview

Portable Battery Charging Rack is used for charging the IGU-16, IGU-16HR, IGU-16HR 3C, IGU-16HR-IES Batteries.



Specifications

Parameter	Specifications
Dimension(LxWxD)	625x500x366 mm
Weight	26.3 kg
Layout	16 charging slots(4X4)
Maximum Charging Current	2.4 Amps
Power Supply	100-240 V, 50/60 Hz
Rated Power	640 W
Charging Mode	<90% fast charge
	>90% trickle charge
Charging Time	<3.25 hours from fully discharged(IGU-16, IGU-16HR, IER-1 的 battery)
	<6 hours from fully discharged (IGU-16HR 3C 的 battery)
	<24 hours from fully discharged (External high-capacity battery)
Charging Temperature	+3℃ - +45℃

Portable Battery Charging Rack

(Suirt for BD3C series)

Overview

Portable charging rack is used to charge BD3C. There are 16 slots. The 16-port charging rack is suitable for BD3C series product, e.g. BD3C-5, IGU-16HR 3C 2Hz, IGU-16HR 3C AIO 5Hz, as well as IGU-16HR EB 3C high-capacity battery pack (with one split two cables).



Specifications

Parameter	Specifications
Dimension(LxWxD)	558×357×300 mm
Weight	14.5 kg
Layout	16 charging slots(4X4)
Status Indication	LED light
Maximum Current	4 A for each Slot
Charging Mode	<90%, fast charge
	>90%, trickle charge
Charging Time	<8 hours from fully depleted (IGU-BD3C-5)
Charging Temperature	+3°C ~ +45°C
Charging Humidity	20%~90% RH, non-condensing
Power Supply	100-240 V AC, 50/60 Hz
Maximum consumption	1000 W
Charging LED Flashing Code	
Four red flashes per second	Serious error
One red flash per second	Outside allowable charging temperature range
Steady red light	Battery is in charging, charge level under 50%
Steady yellow light	Battery is in charging, level between 50% to 90%
Steady green light	Battery bis in charging, level between 90% and 100%
One green flash per second	Battery is fully charged

IGU Tester

Overview

The IGU Tester is used to perform acceptance testing of IGU-16 (both the electronics and the geophones). It can test 16 units at once. The Tester software provides a comprehensive range of user-selectable test options.



Specifications

Parameter	Specifications
Dimension(LxWxD)	625x500x297 mm
Weight	38 kg
Layout	16 slots(4X4)
Power Supply	100-240 V, 50/60 Hz
Rated Power	25 W

Universal IGU Tester

Overview

The Universal IGU Tester is used to perform acceptance testing of IGU-16HR-IES (both the electronics and the geophones). It can test 12 units at once. The Tester software provides a comprehensive range of user-selectable test options. The IGU-IES Tester. The Universal IGU Tester is compatible with all IGU-16 series products.



Specifications

Parameter	Specifications
Dimension(LxWxD)	625x500x297 mm
Weight	34 kg
Layout	12 slots (3X4)
Power Supply	100-240 V, 50/60 Hz
Rated Power	25 W

Portable Battery Charging Rack

Overview

Portable Battery Charging Rack is used for charging the IGU-16, IGU-16HR, IGU-16HR 3C, IGU-16HR-IES Batteries. There are 16 charging slots.



Specifications

Parameter	Specifications
Dimension(LxWxD)	625x500x297 mm
Weight	26.3 kg
Layout	16 slots(4X4)
Maximum Charging Current	2.4 Amps
Power Supply	100-240 V, 50/60 Hz
Rated Power	640W
Charging Mode	<90%, fast charge
	>90%, trickle charge
Charging Time	<3.25 hours from fully discharged(IGU-16, IGU-16HR, IER-1 的 battery)
	<6 hours from fully discharged (IGU-16HR 3C 的 battery)
	<24 hours from fully discharged (External high-capacity battery)
Charging Temperature	+3℃ - +45℃

Universal Portable Data Harvesting Rack

Overview

The Universal Portable Data Harvesting Rack (DHR) is used to program the IGU-16HR-IES and offload data. Each Universal Portable DHR has 12 slots. The average downloading speed of each slot is 20MB/s. The Universal Portable DHR is compatible with all IGU-16 series products.



Specifications

Parameter	Specifications
Dimension(LxWxD)	625x650x366 mm
Weight	23 kg
Layout	12 slots(3X4)
Power Supply	100-240 V, 50/60 Hz
Rated Power	100 W
Download Speed	20 MB/s per slot

All In One Rack(For IAU-19)

Overview

The device is used to download data and test for IAU-19, or to charge the IAU-19 battery. Each charging rack designed 48 slots, and each slot is equipped with 2 LED indicator lights, to display the download/testing status or the charging status of the battery. Downloading/testing or charging by turning to the switch.

This all-in-one is suit for IAU-19 product.

*When the IAU -19HR battery temperature exceeds the charging range, the equipment will automatically stop until the temperature returns to the charging range.



Specifications

Parameter	Specifications
Dimension(LxWxD)	650x320x1810 mm
Weight	143 kg
Layout	12 rows,4charging slots per row
Maximum Charging Current	2.4 Amps
Power Supply	100-240 V, 50/60 Hz
Rated Power	1920 W
Charging Mode	<90%,fast charging
	>90%,trickle charging
Charging Time	<3 hours
Indicator Light	2 LED lights/slot,left light indicate download/test,right light indicate charge
Working Humidity	20%~90% RH,non-condensing
Charging Temperature	+3℃ - +45℃
External Interface	USB3.0*3,USB2.0*2

Portable All In One (IAU-19)

Overview

This device can be used to download data and test for IAU-19, or to charge the IAU-19 battery pack. Each charging rack has 16 slots, and each slot is equipped with 2 LED indicator lights to display the download/testing status or battery pack charging status of each IAU-19.



Specifications

Parameter	Specifications
Dimension(LxWxD)	625x500x366 mm
Weight	28.5 kg
Layout	16 slots(4X4)
Maximum Charging Current	2.4 Amps
Power Supply	100-240 V, 50/60 Hz
Rated Power	640 W
Charging Mode	<90%,fast charging
	>90%,trickle charging
Charging Time	<3 hours
Indicator Light	2 LED lights/slot,left light indicate download/test,right light indicate charge
Working Humidity	20%~90% RH,non-condensing
Charging Temperature	+3℃ - +45℃
External Interface	USB3.0

16 Slots All-In-One

Overview

The 16 slots All-In-One is a small integrated system. It is designed for the small channel system, so that customers can complete the whole project with only one box. One slot for testing, three slots set for downloading, and twelve slots set for charging.



Specifications

Parameter	Specifications
Dimension(LxWxD)	625x500x366 mm
Weight	21 kg
Layout	16 slots(1 is set for testing,3 for downloading,12 for charging)
Maximum Charging Current	2.4 Amps
Power Supply	100-240 V, 50/60 Hz
Rated Power	640 W
Charging Time	<3.25 hours from fully discharged(IGU-16, IGU-16HR, IER-1 的 battery)
	<6 hours from fully discharged (IGU-16HR 3C 的 battery)
	<24 hours from fully discharged (External high-capacity battery)
Charging Mode	<90%,fast charging
	>90%,trickle charging
Download Speed	20 MB/s for each slot
Working Humidity	20%~90% RH,non-condensing
Charging Temperature	+3℃ - +45℃

16 Slots All-In-One(BD3C series)

Overview

IGU-BD3C-5 16 Slots All-In-One is a portable peripheral device of IGU-BD3C-5, which integrated charging and data downloading functions.

This 16 Slots AIO has 16 charging and data downloading modules, allows users to charge or download 16 IGU-BD3C-5 devices in one batch.

This device suit for BD3C series product BD3C-5, IGU-16HR 3C 2Hz, IGU-16HR 3C AIO 5Hz



Specifications

Parameter	Specifications
Dimension(LxWxD)	638x509x366 mm
Weight	33 kg
Layout	16 modules for downloading and charging
Power Supply	100-240 V, 50/60 Hz
Rated Power	1100 W
Working Humidity	20%~90% RH,non-condensing
Connect linterface	USB3.0
Status Indication	Charging status LED(on the panel)
	Downloading status LED(on the charging and data downloading module)
Charging Specifications	
Maximum Charging Current	4 Amps per slot
Charging Time	<7.5 hours from fully discharged(BD3C-5 Standard battery)
Charging Mode	<90%,fast charging
	>90%,trickle charging

Specifications(continue)

Parameter	Specifications
Working Humidity	20%~90% RH, non-condensing
Charging Temperature	+3℃ - +45℃
Charging LED Flashing Code	
LED is not bright	NTC break
Red LED Flash 4 times per second	The positive terminal of the battery pack is disconnected
Red LED Flash 1 time per second	The negative terminal of the battery pack is disconnected/ NTC short circuit/ over temperature
Steady Red LED	Battery is charging, power<65%
Steady Yellow LED	Battery is charging, 65%<power<90%
Steady Green LED	Battery is charging, 90%<power<100%
Green Led Flash 1 time per second	Battery is fully charged
Downloading Specifications	
Download Speed	20 MB/s for each slot
Downloading LED Flashing Code	
Fast Flash Red LED	Connecting or Reading/Writing data
Steady Red LED	IGU-BD3C-5 connected in downloading mode or downloading complete



(continue)

Dedicated Charging and Data Downloading Module



Specifications

Parameter	Specifications
Dimension(LxWxD)	103.8x84.5x32.8 mm
Weight	0.170 kg
Interface	USB3.0 interface*1,DC power interface*1
Download Speed	20 MB/s for each slot
Connection Interface	USB3.0
Working Humidity	20%~90% RH,non-condensing
Power Supply	100-240 V, 50/60 Hz
Charging LED Flashing Code(LED is located on the charging adaptor)	
Steady Green LED	Battery is fully charged
Steady Red LED	Battery is charging
Accessories	1x 1m Type-A USB3.0 cable
	1x 8.4V 4A charging adaptor

Four-slot All-In-One(1+1+2)

Overview

The four Slots All-In-One is a small integrated system which combines 2 charging slots, 1 data harvesting slot and 1 testing slot. It is designed for the small channel system, we can complete the whole project with only one box.



Specifications

Parameter	Specifications
Dimension(LxWxD)	411x322x168 mm
Weight	7.6 kg
Layout	4 slots(1 slot for testing,1 slot for downloading,2 slots for charging)
Maximum Charging Current	2.4 Amps
Power Supply	100-240 V, 50/60 Hz
Rated Power	640 W
Charging Time	<3.25 hours from fully discharged(IGU-16, IGU-16HR, IER-1battery)
	<6 hours from fully discharged (IGU-16HR 3C battery)
	<24 hours from fully discharged (External high-capacity battery)
Charging Mode	<90%,fast charging
	>90%,trickle charging
Download Speed	20 MB/s for each slot
Working Humidity	20%~90% RH,non-condensing
Charging Temperature	+3℃ - +45℃

Four-slot Downloading&Charging Rack

Overview

4 Slots Downloading&Charging Rack is a small integrated system which combines 2 charging slots and 2 data harvesting slots. It is designed for the small channel system. No power supply is required for data harvesting then we can download data anytime, anywhere.



Specifications

Parameter	Specifications
Dimension(LxWxD)	411x322x168 mm
Weight	8 kg
Layout	4 slots(2 slots for downloading,2 slots for charging)
Maximum Charging Current	2.4 Amps
Power Supply	100-240 V, 50/60 Hz
Rated Power	320 W
Charging Time	<3.25 hours from fully discharged(IGU-16, IGU-16HR, IER-1battery)
	<6 hours from fully discharged (IGU-16HR 3C battery)
	<24 hours from fully discharged (External high-capacity battery)
Charging Mode	<90%,fast charging
	>90%,trickle charging
Download Speed	20 MB/s for each slot
Working Humidity	20%~90% RH,non-condensing
Charging Temperature	+3℃ - +45℃

Two-slot All-In-One

Overview

The mini-peripheral for field use which combines 1 data harvesting slot and 1 testing slot and can be powered by USB.



Specifications

Parameter	Specifications
Dimension(LxWxD)	250x218x165 mm
Weight	2.3 kg
Layout	2 slot(1 slot for downloading,1 slot for testing)
Working Power	5 V,1 A,USB
Connection Interface	USB3.0
Download Speed	20 MB/s for each slot
Working Humidity	20%~90% RH, non-condensing
Downloading LED Flashing Code	
Red Light Fast Flash	Connecting or Reading/Writing data
Red Light steady Light	Steady Connecting or no operation
Testing LED Flashing Code	
Steady Green Light	IGU-16 Main body/IGU-16 AUX connected the testing software

Two-Slot Downloading&Charging Rack

Overview

2 Slots Downloading&Charging Rack is a small integrated system which combines 1 charging slot and 1 data harvesting slot. It is designed for the small channel system. No power supply is required for data harvesting then we can download data anytime, anywhere.



Specifications

Parameter	Specifications
Dimension(LxWxD)	250×218×165 mm
Weight	2.3 kg
Layout	2 slot (1 slot for downloading,1 slot for charging)
Power Supply	100-240 V, 50/60 Hz
Working Power	5 V,1 A,USB
Rated Power	25 W
Download Speed	20 MB/s for each slot
Connection Interface	USB3.0
Charging Time	<3.25 hours from fully discharged(IGU-16, IGU-16HR, IER-1battery)
	<6 hours from fully discharged (IGU-16HR 3C battery)
	<24 hours from fully discharged (External high-capacity battery)
Charging Mode	<90%,fast charging
	>90%,trickle charging
Charging Temperature	+3℃ - +45℃
Working Humidity	20%~90% RH,non-condensing

Two-slot All In One(IAU-19)

Overview

The 2-slot all in one equipment is a integrated system designed for the small channel system.It suit for downloading or charging for the IAU-19 product.1 slot set for downloading and testing,1 slot set for charging.



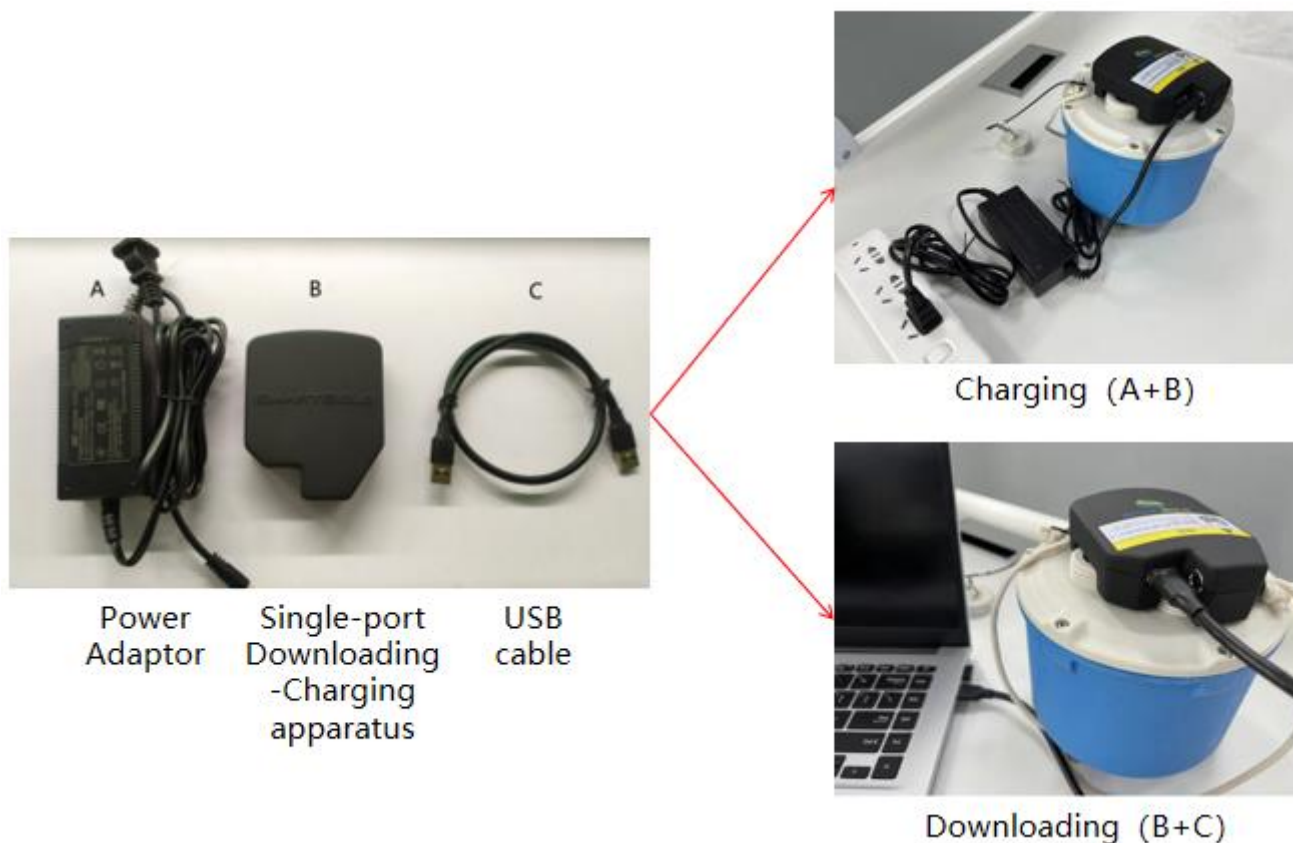
Specifications

Parameter	Specifications
Dimension(LxWxD)	247x204x163 mm
Weight	3.8 kg
Layout	2 slot (1 slot for downloading and testing,1 slot for charging)
Power Supply	100-240 V, 50/60 Hz
Power Supply	8.4V, 2A
Rated Power	25 W
Download Speed	20 MB/s for each slot
Connection Interface	USB3.0*1,DC power*1
Charging Mode	<90%,fast charging
	>90%,trickle charging
LED Indicator Light (charging indicator light on the adapter, downloading/testing indicator light on the panel)	
Steady Red Light	Charging
Steady Green Light	Charge complete
Charging Temperature	+3℃ - +45℃
Working Humidity	20%~90% RH, non-condensing

Single-port combined Downloading and Charging Device

Overview

The Single-port combined downloading and Charging device is designed for the small channel system to download or charge for BD3C series product. This set of equipment contains 1piece USB Cable, 1piece dedicated Power Adaptor and 1piece Downloading and Charger(power socket prepared by user-self).



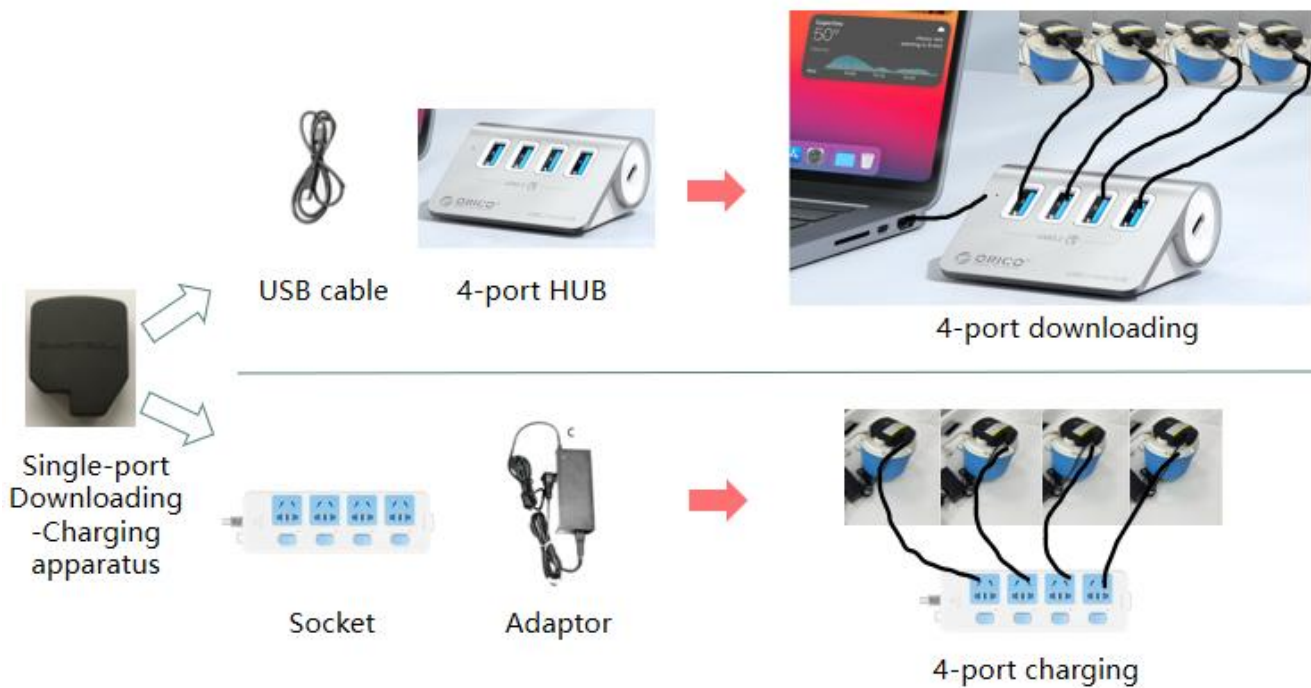
Specifications

Parameter	Specifications
USB Cable	1piece, 1x 1m Type-A USB3.0 Cable
Power Adaptor	1piece, input 220 VAC, output 8.4 VDC/2 A
Single Downloading and Charging	1piece, USB3.0 interface*1, DC power interface*1
Download Speed	20 MB/s for each slot
Connection Interface	USB3.0
Charging LED Flashing Code (LED located on charging adapter)	
Steady Green Light	Charge complete
Steady Red Light	Charging

Four-port Combined Downloading and Charging Device

Overview

The 4-Port combined download and Charging device is designed for the small channel system.to download or charge for BD3C series product.This Device contain 5 pieces USB able,1 piece 4-port HUB,4 pieces dedicated power adaptor and 4 pieces downloading-charging all in one apparatus(power socket prepared by user-self).



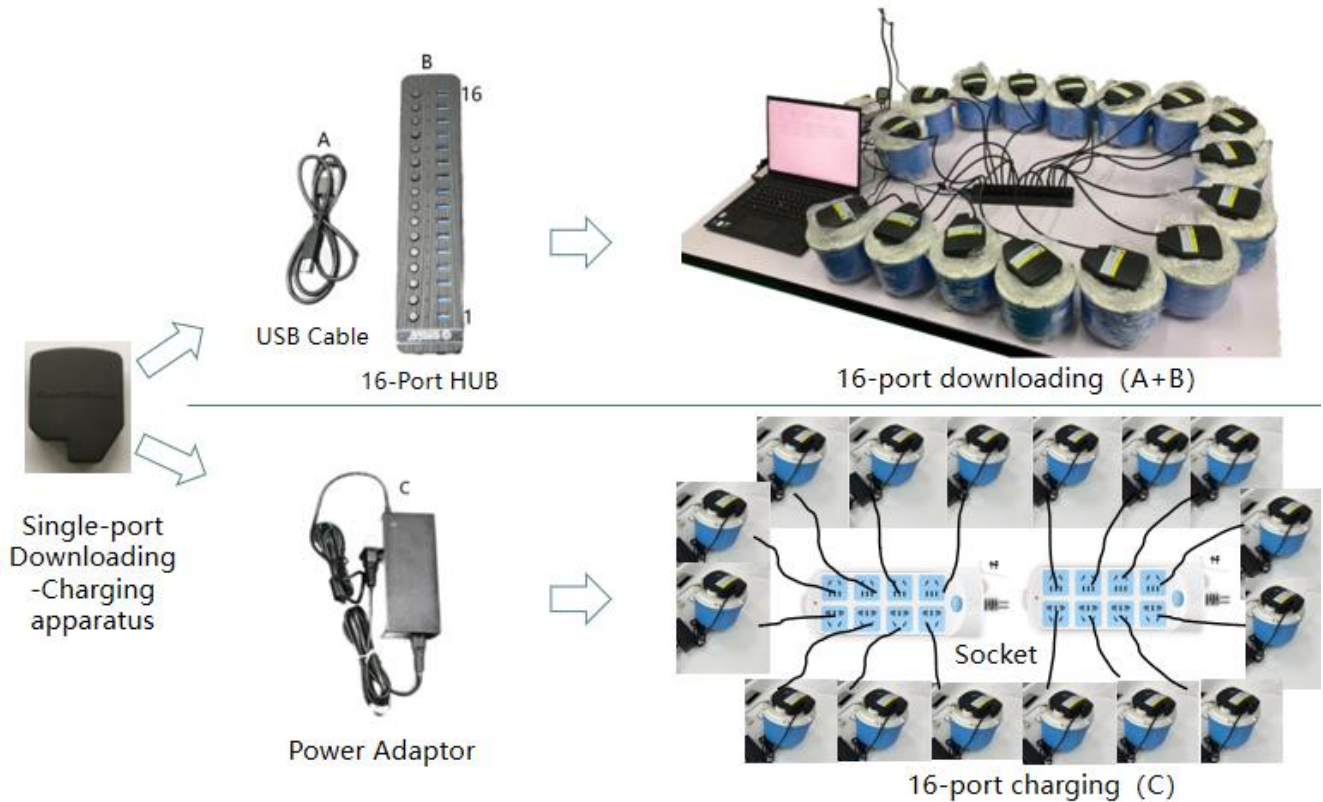
Specifications

Parameter	Specifications
USB Cable	5 piece,1x 1m Type-A USB3.0 Cable
HUB	1piece,4 ports
Power Adaptor	4piece,input220 VAC, output8.4 VDC/2 A
Downloading and Charger	4piece,USB3.0 interface*1,DC power interface*1
Download Speed	20 MB/s for each slot
Connection Interface	USB3.0
Charging LED Flashing Code (LED located on charging adaptor)	
Steady Green Light	Charge complete
Steady Red Light	Charging

Sixteen-port Combined Downloading and Charging Device

Overview

The 16-Port combined download and Charging device is designed for the small channel system.to download or charge for BD3C series product.This Device contain 17 pieces USB cable,1 piece 16-port HUB,16 pieces dedicated power adaptor and 16 pieces downloading-charging all in one apparatus(power socket prepared by user-self).



Specifications

Parameter	Specifications
USB Cable	17 piece,1x 1m Type-A USB3.0 cable
HUB	1 piece,16 ports
Power Adaptor	16piece,input 220 VAC,output 8.4 VDC/2 A
Downloading and Charger	16piece,USB3.0 interface*1,DC power interface*1
Download Speed	20 MB/s for each slot
Connection Interface	USB3.0
Charging LED Flashing Code (LED located on charging adapter)	
Steady Green Light	Charge complete
Steady Red Light	Charging

Single-port Data Harvesting Device

Overview

The single port download rack is suitable for IGU-16 series product collection, downloading main data, firmware upgrades, and downloading scripts.



Specifications

Parameter	Specifications
Dimension(LxWxD)	102x89x98 mm
Weight	0.95 kg
Slot Number	1
Interface	USB3.1 x1
Downloading Speed	20 MB/s (Average)
LED Indicator Status	
Red Light Fast Flash	Connecting or reading/writing data
Red Light Always On	Stable connection and no operation

Single-port Battery Charging Device

Overview

The single port battery charging device is suitable for charging the battery pack of IGU 16 series products. This product is suitable for small channel charging or emergency charging of IGU series battery packs.



Specifications

Parameter	Specifications
Dimension(LxWxD)	102x89x98 mm
Weight	0.95 kg
Slot Number	1
Maximum Charging Current	1 A
Charging Time	<3.25 hours(IGU standard battery)
Power Supply	100-240V AC,50/60 Hz
Rating Power	21 W
LED Indicator Status	
Red Light Always On	Charging
Green Light Always On	Fully Charged

Single-port Battery Charging Device

Overview

The single port tester is suitable for testing the IGU-16 series product acquisition main body and IGU AUX acquisition main body, including detector testing and electrical performance testing of acquisition channels.



Test Item

No	Geophone	Channel
1	Nature Frequency	EIN
2	DC Resistance	Dynamic Range
3	Damping	CMRR
4	Sensitivity	THD
5	Sensor THD	Gain Accuracy
6	Impedance	Cross Feed

Specifications

Parameter	Specifications
Dimension(LxWxD)	117X88X76 mm
Weight	0.815 kg
External Power	USB3.0
LED Green Light Always On	IGU-16 main body or IGU 16 AUX connect the test software

Auxiliary Box

Overview

The AUX Box contains 4 IGU-16-AUX units and requires external GPS antenna. It can thus record up to 4 auxiliary signals with microsecond accuracy. The Aux signals (TB signal, sweep signal, e.g.) are then offloaded by DHR and used for later data export.



Specifications

Parameter	Specifications
Dimension(LxWxD)	361x289x165 mm
Weight	6.5 kg
Channels	4
Power Supply	12 VDC

Automatic Assembly/Disassembly Machine (ADM)

Overview

The Automatic Assembly/Disassembly Machine (ADM) is used to assemble and disassemble IGU-16 for offloading, battery charging and redeployment.



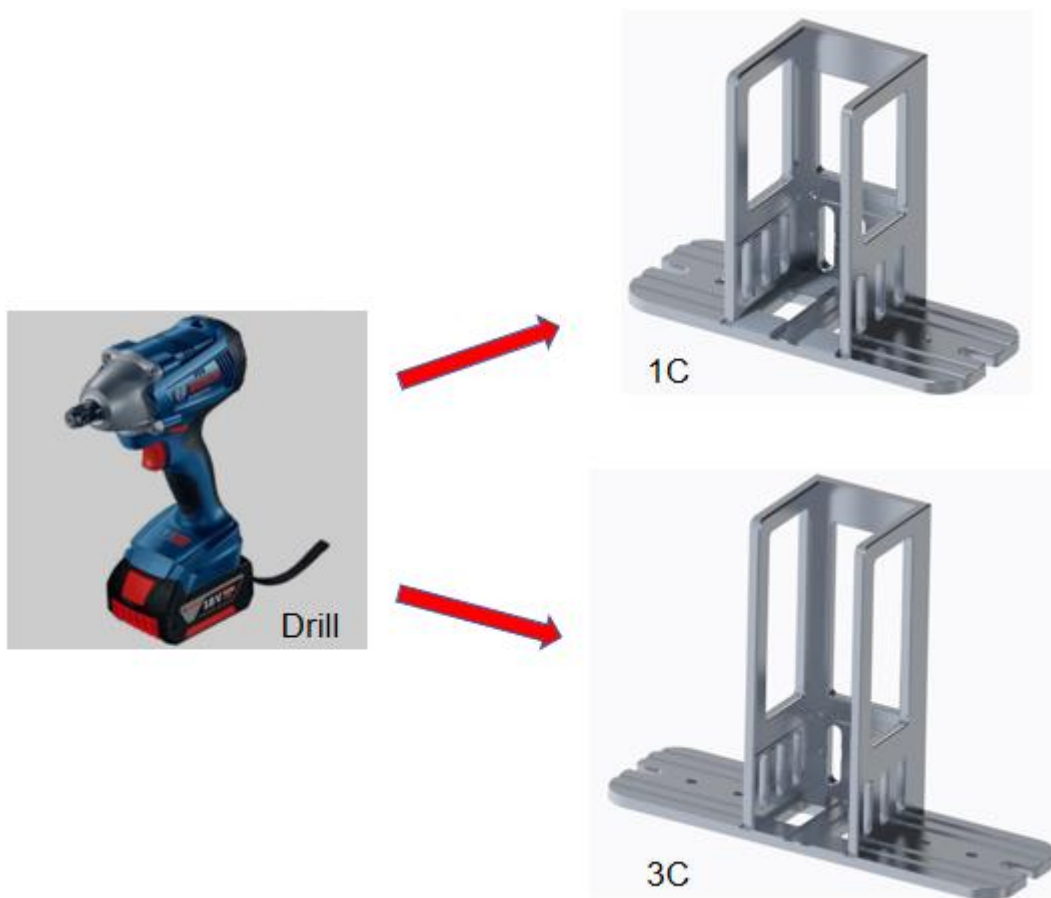
Specifications

Parameter	Specifications
Dimension(LxWxD)	665x265x410 mm
Weight	34.5 kg
Power Supply	100-240 V, 50/60 Hz
Rated Power	800 W
Assemble/Disassemble Efficiency	720 pieces IGU/hour

Semi-automatic Assembly/Disassembly Device

Overview

The semi-automatic Assembly and disassembly device is used for installing and disassembling the main body and battery package of IGU-16 series products during the construction process.



Specifications

Parameter	Specifications
Electric Drill	Torque:28Nm(Soft)
	Torque:50Nm(Hard)
Disassembly Fixed Base(1C)	1piece,material is Aluminium alloy
Disassembly Fixed Base(3C,optional)	1piece,material is Aluminium alloy

Disassembly Wrench

Overview

The disassembly wrench is a simple device used for installing and disassembling the main body and battery package of IGU-16 series products during the construction process.



Wrench(1C)



Wrench(3C)

Specifications

Parameter	Specifications
Wrench(1C)	Dimension (LxWxD) :238.3x55x6 mm
	Weight:323.7 g
	Material:Steel 316#
Wrench(3C)	Dimension: 260 mm(L),110 mm(Head Diameter),5 mm(Thickness)
	Weight:387 g
	Material:Iron 45#,Blackening treatment

Field Deployment Tool

Overview

The Field Deployment Tool is handheld RFID scanning equipment which runs SmartSolo APP for scanning IGU-16 after deployment to match survey line and station number.



Specifications

Parameter	Specifications
Dimension (LxWxD)	164.2x78.8x17.0 mm
Weight	<288 g
Waterproof	IP67

Field Deployment Tool

Overview

The magnetic switch is used to turn on or turn off the SmartSolo series acquisition product.



Specifications

Parameter	Specifications
Dimension(ODxLengthen)	Φ 15x30 mm
Length of Sling	275~2400 mm
Package Dimension(LxWxH)	120x40x40 mm
magnetic Field Intensity	3.6 mT

TB Recorder

Overview

TB Recorder is a high-precision GPS signal recorder used for GPS recording of various types of excitation signals. Supports triggering of pulse signals and closing signals. Built in buzzer, with a prompt sound after successful triggering. Use USB charging, built in battery, built-in GPS antenna and module. Equipped with SoloTB software, using Android mobile devices connected via Bluetooth (Bluetooth 4.0 or above), real-time shooting status can be viewed, and OB Log files required for the project can be generated.



Specifications

Parameter	Specifications
Dimension(LxWxD)	135.5x114x53 mm
Weight	0.67 kg
Interface	1*Type C
	1*Signal input interface
Status Indicator	GPS LED*1
	Bluetooth LED*1
	Charging LED*1
	Buzzer*1
Waterproof and Dustproof level	IP67
Switch	Power switch*1
	Signal conversion switch*1

(Continue)

Parameter	Specifications
Time Accurate	±1 us
Time Resolution	1 ns
Operating Temperature	-40°C ~ +70°C
Working Humidity	20% ~ 90% RH,Non-condensing
Antenna Type	Built in GNSS antenna
External Working Power Supply	5V,2A
Charging Voltage	5V,2A (Depending on the adapter support protocol, it may vary)
Charging Temperature	+3°C ~ +45°C
Internal Storage	8 GB
Battery Life	Built in battery with working continuously for 60 hours

Definition of indicator light status

Working Mode	Describing	Indicator1 (GNSS)	Indicator2 (DATA)	Indicator3 (Charge)
Startup	Searching for stars	red light flashing	\	\
	Bluetooth startup	\	Blue light flashing slowly	\
Normal operation	Star search completed	green light flashing	\	\
	Star search anomaly	red light flashing for a long term	\	\
	Low battery	\	red and blue light alternating	\
	Connected SOLOTB	\	Blue light flashing fast	\
Download status	Normal Downloading	Blue light flashing	Blue light flashing	Red light always on
Charging Status	Normal charging	\	\	Red light always on
	Battery fully charged	\	\	green light always on
	Battery abnormality	\	\	Red and green flashing alternating
	Exceeding the charging temperature range	\	\	Red and green flashing alternating

DHR Shock Mount

Overview

The DHR rack shock Mount is suitable for IGU-16 series cabinet style DHR racks that work inside movable container trucks. Its function is to assist in shock absorption, reduce damage caused by vibration and impact, and protect equipment from damage. The shock absorption protection methods include bottom shock absorption protection and lateral shock absorption protection.

Side plate Shock Mount



Bottom plate Shock Mount



Specifications

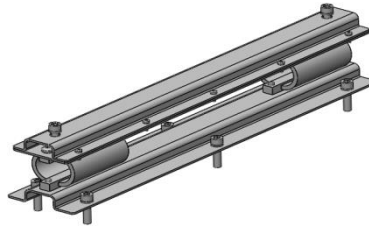
Parameter	Specifications	
	Bottom Plate Shock Mount	Side Plate Shock Mount
Dimension(LxWxD)	720x310x72 mm	830x110x102 mm
Weight	22 kg	15 kg
Maximum Loading In vertical	556*4 N (227 kgf)	556*2 N (113.5 kgf)
Color	Blackened finished	Blackened finished

BCR Shock Mount

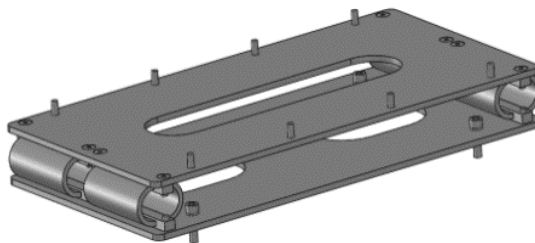
Overview

The BCR rack shock Mount is suitable for IGU-16 series cabinet style BCR racks that work inside movable container trucks. Its function is to assist in shock absorption, reduce damage caused by vibration and impact, and protect equipment from damage. The shock absorption protection methods include bottom shock absorption protection and lateral shock absorption protection.

Side Plate Shock Mount



Bottom Plate Shock Mount



Specifications

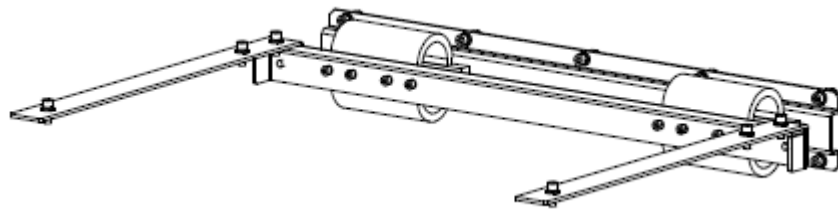
Parameter	Specifications	
	Bottom Plate Shock Mount	Side Plate Shock Mount
Dimension(LxWxD)	624x310x81 mm	620x110x111 mm
Weight	25 kg	13 kg
Maximum Loading In Vertical	1060*4 N (432 kgf)	1060*2 N (216 kgf)
Color	Blackened finished	Blackened finished

Server Cabinet Shock Mount

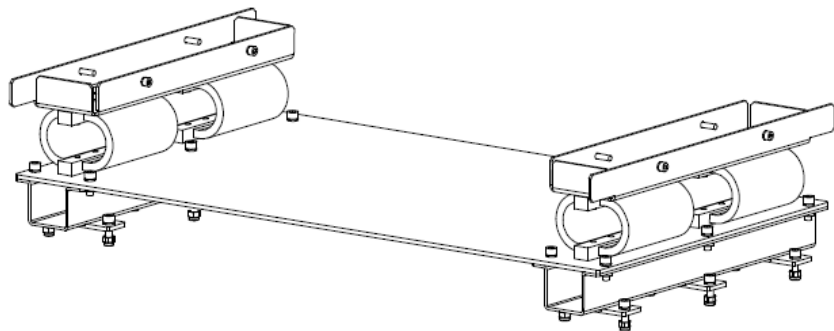
Overview

The Server Cabinet Shock Mount is suitable for Server that work inside movable container trucks. Its function is to assist in shock absorption, reduce damage caused by vibration and impact, and protect equipment from damage. The shock absorption protection methods include bottom shock absorption protection and lateral shock absorption protection.

Side Plate Shock Mount



Bottom Plate Shock Mount



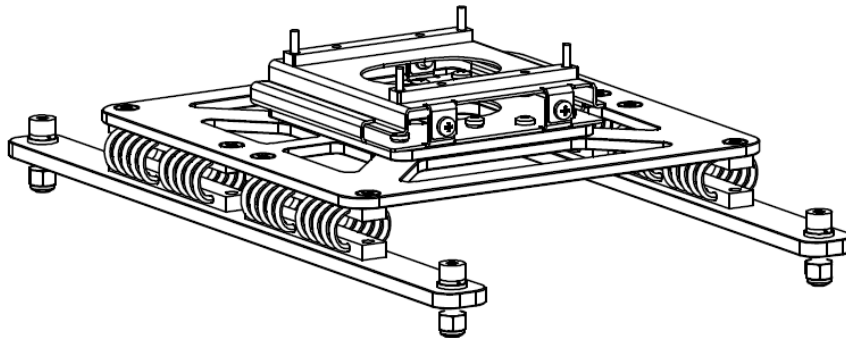
Specifications

Parameter	Specifications	
	Bottom Plate Shock Mount	Side Plate Shock Mount
Dimension(LxWxD)	1070x570x140 mm	620x110x170 mm (Excluding Bracket Length)
Weight	64 kg	13 kg
Maximum Loading In Vertical	1735*4 N (708 kgf)	1060*2 N (216 kgf)
Color	Blackened finished	Blackened finished

Monitoring Shock Mount

Overview

The Monitoring Shock Mount is suitable for Monitoring that work inside movable container trucks. Its function is to assist in shock absorption, reduce damage caused by vibration and impact, and protect equipment from damage. The shock absorption protection methods is bottom shock absorption protection.



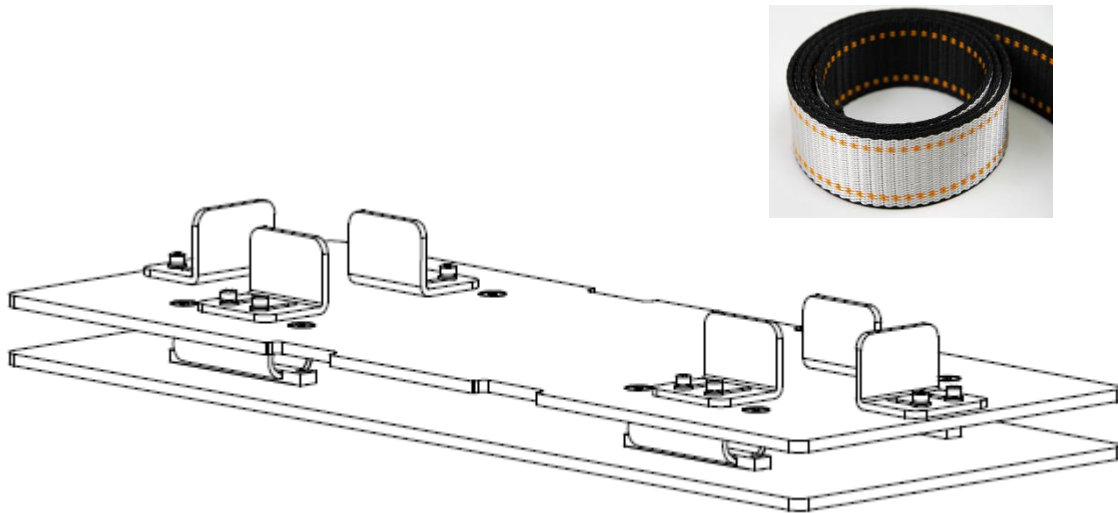
Specifications

Parameter	Specifications
Dimension(LxWxD)	420x250x89 mm
Weight	4.8 kg
Maximum Loading In Vertical	6~8 kg
Color	Blackened finished

UPS Shock Mount

Overview

The UPS Shock Mount is suitable for uninterrupted power supply work inside movable container trucks. Its function is to assist in shock absorption, reduce damage caused by vibration and impact, and protect equipment from damage. The shock absorption protection methods is bottom shock absorption protection.



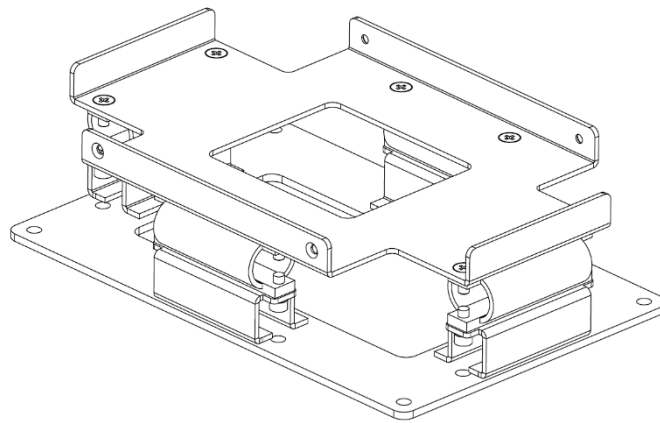
Specifications

Parameter	Specifications
Dimension(LxWxD)	770x300x47 mm
Weight	45 kg
Maximum Loading In Vertical	32~41 kg
Bundle Up Method	2 m (Length)*40 mm(Width) Nylon Woven tape*2 pieces

ADM Shock Mount

Overview

The ADM Shock Mount is suitable for Automatic Assembly/Disassembly Machine (ADM) work inside movable container trucks. Its function is to assist in shock absorption, reduce damage caused by vibration and impact, and protect equipment from damage. The shock absorption protection method is bottom shock absorption protection.



Specifications

Parameter	Specifications
Dimension(LxWxD)	400.5x273.5x112.5 mm
Weight	32 kg
Maximum Loading In Vertical	50~80 kg
Color	Blackened finished

Out sourcing Equipment

Tower Server

Overview

Choose different tower servers based on the size and requirements of the client's project.
 For example: Tower server POWEREDGE T640



Specifications

Parameter	Specifications(Typical configuration)
Dimension(LxWxD)	690X440X220 mm
Weight	45 kg
CPU	Intel(R)Silver 4214 R
RAM	128 GB
Raid1	2 TB * 2 TB
Raid5	14 * 12 TB
Operation System	Server2019
Ethernet Interface	2 * 10 GbE

Rack-mounted Server

Overview

Choose different tower servers based on the size and requirements of the client's project.
 For example: Rack-mounted server 2U ThinkServer SR588



Specifications

Parameter	Specifications(Typical configuration)
Dimension(LxWxD)	746X445X87 mm
Weight	19 kg
CPU	2x4210R(20Core 2.4G)
RAM	32 GB
Raid1	2 * 2 TB
Operation System	Server2019
Ethernet Interface	2 * 1 GbE RJ-45

Portable Server

Overview

Choose different portable servers based on the size and requirements of the client's project.
 For example: Portable server ThinkPad P1



Specifications

Parameter	Specifications(Typical configuration)
Monitoring Size	16"
Weight	1.7 kg
CPU	Core i7-13800H, 12 threads
RAM	32 GB
Hard Disk	1 TB SSD
Operation System	Windows 11
Graphics Card	RTX3500 4K touch Screen

UPS

Overview

Uninterruptible power supply(UPS) is mainly used to protect computers and servers that can be maintained for a period of time for data storage after a sudden power outage.

For example: APC UPS APC-SMC1500I-CH



Specifications

Parameter	Specifications(Typical configuration)
Dimension(LxWxD)	219*171*439 mm
Weight	24.04 kg
Rated Voltage	230 V
Rated Power	900 W
Rated Capacity	0.9 KVA
Working Temperature	0~40°C
Input Voltage Range	180-287 V
Input Frequency Range	47-53/57-63 Hz
Output Voltage Range	160-287 V
Output Frequency Range	50±1 Hz
Input Interface	IEC320-C14
Output Interface	IEC320-C13
Typical duration of power supply	half load 14.4 minutes
	Fully load 4.7 minutes

10 Gigabit Ethernet

Overview

A 10 Gigabit Ethernet is used to download the collected data and transfer it to the server through or without a computer.

For example: GS110MX



Specifications

Parameter	Specifications(Typical configuration)
Dimension(LxWxD)	236X102X27 mm
Weight	0.74 kg
Port	10(2*100M/1G/2.5G/5G/10G RJ-45,8*10M/100M/1G)
Power Voltage	12V 1.5A
Working Operation Temperature	0~40°C
Transfer Rate	10/100/1000/2500/5000/10000 Mbps
Backplane Bandwidth	56 Gbps
Power	13.2 W

Router

Overview

Routers are used for transmitting and receiving data..

For example: Netgear RAX10



Specifications

Parameter	Specifications(Typical configuration)
Dimension(LxWxD)	236X184X57 mm
Weight	2 kg
Antennal Number	3 pieces
Applicable frequency band	5GHz;2.4GHz+5GHz;2.4GHz
Bandwidth	80 MHz
Wireless Protocol	Wi-Fi 6
Total Carrying Capacity	101-150 terminals
LAN port	4 slots

Encoder

Overview

Encoders can start, ignite, trigger, or monitor seismic sources and transmit information to seismic recording systems. It uses GPS information to achieve high timing accuracy. For hybrid workgroups, multiple encoders can be used to synchronize multiple recording systems. 100% compatible with the Force 3 system.

For example: UE-3

No	Typical configuration
1	UE3 Network cable *1 piece
2	338 Radio/power cord *1 piece
3	Single frequency GPS*1 piece
4	Sourcelink software*1 set



Specifications

Parameter	Specifications(Typical configuration)
Dimension(LxWxD)	286 x 242 x 57 mm
Weight	2.7 kg
Power	10-30 V DC
Cosumption	0.2 amps
Supported Aquisition Technical	convention Slip Sweep (Shell) HFVS (ExxonMobil) ZenSeis (ConocoPhillips) Variable Slip with Distance alternate scanning ISSS
Number of Seismic Sources	Wireless serial port *4 slots
Wireless Device Quantity	4 pieces
Support Radio Types	Analog, Digital, and Ethernet

Small Controllable Seismic Source

Overview

The lightweight electro-hydraulic servo controllable seismic source is used to replace explosive seismic sources in the construction scope of smart cities, sponge cities, urban comprehensive pipe galleries, rail transit, and other areas that are vigorously developing. It can also effectively suppress the impact of urban comprehensive noise on seismic exploration. For example: Geopen LVIB-15



Specifications

Parameter	Specifications(Typical configuration)
Dimension(LxWxD)	2200X1400X1350 mm
Weight	1800 kg
Source Output	15 kN
Frequency Range	3Hz ~ 250 Hz
Engine Power	22.2 Kw
synchronous Mode	Line GPS Gt mode or ST mode
Mass of Heavy Hammer	194 kg
Speed	5.0 Km/h