



**Model SSISOV200V10K18G
ISO 11451-2 Full Vehicle
AR Standard System
10kHz-18GHz
200 V/m at 2 Meter Testing Distance**

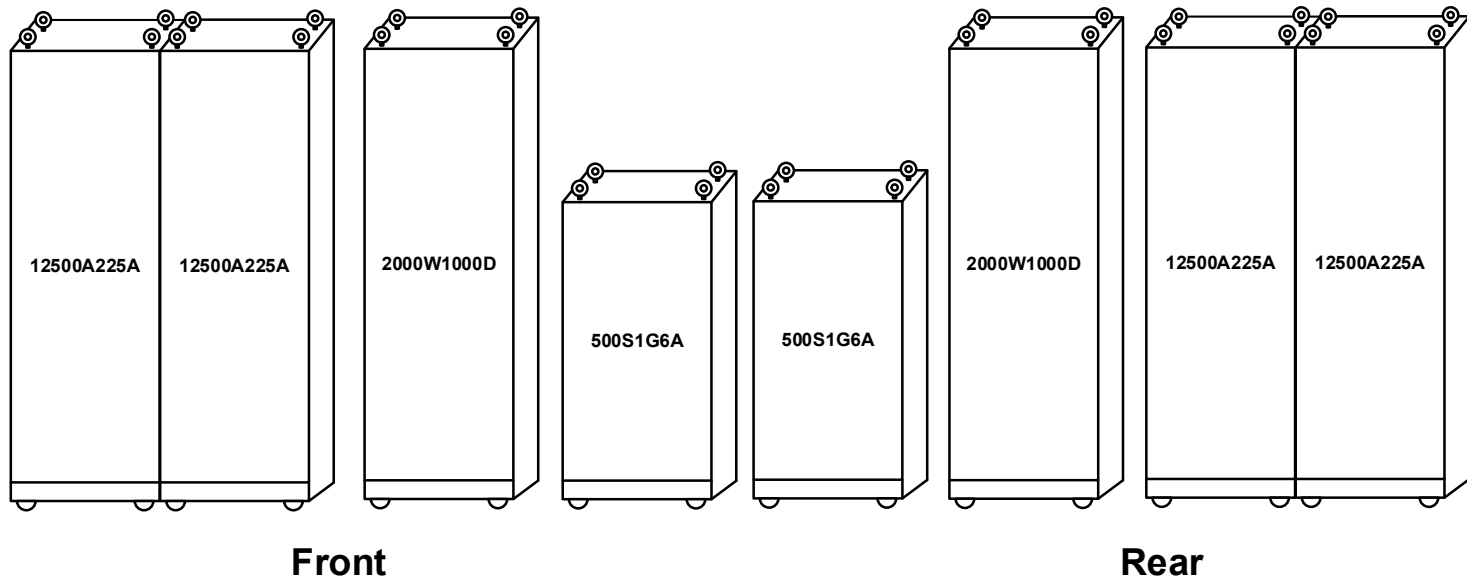
The SSISOV200V10K18G System is designed to generate up to 200 V/m CW at a 2m test distance for ISO 11451-2 full-vehicle testing from 10kHz-18GHz. The signal generation, control, and power monitoring equipment shall be mounted in a ventilated equipment rack along with the RF amplifiers.

The SSISOV200V10K18G AR System consists of the AR equipment, listed herein. Please refer to individual product specification sheets for details. The export classification for this equipment is 3A001. This equipment is controlled for export in accordance with the U.S. Export Administration Regulations. Diversion contrary to U.S. law is prohibited.

AR Standardized Systems are customizable upon request. Contact AR for all such requests.

SSISOV200V10K18G AR Standard System Summary Requirements	
Parameter	Description
System Frequency Range	10kHz-18GHz
CW Field Strength	200 V/m (200 V/m w/ 80% AM peak conservation per ISO 11451)
Test Distance	2 meters
Field Probe Configuration / Uniform Field Area	1 FL7030 and 4 FL7218 Field Probes UFA: 0.5 meters on each side of reference point per ISO 11451-2
Amplifier Configuration	Four RF amplifiers were chosen for this test system: Model 12500A225A-L: 10kHz-225MHz, 12500 Watts Model 2000W1000D: 80-1000MHz, 2000 Watts Model 500S1G6: 1-6GHz, 500 Watts Model 200T4G8: 4-8GHz, 200 Watts Model 250T8G18: 7.5-18GHz, 250 Watts
Antenna Configuration	Dedicated antennas for each amp to provide optimal field generation/uniformity:
	FSA S35012/41: 10kHz-30MHz FSA S12018-21: 30-100MHz Model ATL80M1G: 80-1000MHz Model ATH200M1G: 200-1000MHz Model ATH800M6G: 800-6000MHz Model ATH4G8: 4-8GHz Model ATH7G18: 7.5-18GHz
RF Cable Configuration	Four sets (one for each amp/antenna) consisting of 2 and 8 meter lengths and designated bulkhead feedthroughs for each set.
Software Configuration	System and testing will be controlled using Nexio BAT-EMC software which is preloaded and delivered on a new PC as part of overall system. Price includes a 1-year support contract.
Design approach	Self-contained equipment rack with internal pre-wired RF and power with automatic RF switching via SCP2000. AC power is filtered and distributed through an internal power distribution unit. All RF equipment inputs and outputs are on rear-panel of devices.
Installation, Site Acceptance Testing (SAT) and Training	One week of installation, SAT and Training will be provided by AR Systems Engineers
Export Classification	3A001
<i>Assumptions: 3 dB power margin on amplifiers to accommodate reasonable chamber and system losses Field strength calculations are based on free-space conditions</i>	

Equipment list	
Component	Quantity
Model 12500A225A-L, Amplifier, 10kHz-225MHz, 12500 Watts CW	1
Model 2000W1000DM1, Amplifier, 80-1000MHz, 2000 Watts CW	1
Model 500S1G6A, Amplifier, 0.7-6GHz, 500 Watts CW	1
Model 200T4G8M3, Amplifier, 4-8GHz, 200 Watts CW	1
Model 250T8G18M2, Amplifier, 7.5-18GHz, 250 Watts CW	1
Model DC4256, Dual Directional Coupler, 10kHz-250MHz, 13000 Watts CW	1
Model DC6380, Dual Directional Coupler, 80-1000MHz, 3000 Watts CW	1
Model DC7215A, Dual Directional Coupler, 0.7-6GHz, 750 Watts CW	1
Model DC7352A, Dual Directional Coupler, 4-8GHz, 600 Watts CW	1
Model DC7450M1, Dual Directional Coupler, 7.5-18GHz, 3000 Watts CW	1
Model AD1003, Waveguide Adapter, WRD-750-D24 to N, End Launch, 500 Watts CW	1
Model SCP2000M3, System Controller, DC-18GHz	1
Model PM2003, Power Meter, 3 channels	2
Model PH2000A, Power Head, 10kHz-8GHz, -60dBm to +20dBm	2
Model PH2005, Power Head, 500kHz-18GHz, -70dBm to +20dBm	2
Signal Generator, 9kHz-20GHz (Keysight N5173B with options: -520, -1E1, -1EM, -UNT, -UNW, -UK6, and -1CM110A or equivalent)	1
Model FM7004AM1, Field Monitor	2
Model FL7030/Kit M1, Field Probe Kit, 5kHz-30MHz, 1.5-300V/m	1
Model FL7218/Kit M1, Field Probe Kit, 2MHz-18GHz, 2-1000V/m	4
Model PS2000B, Probe Stand	2
Model CL2000B, Probe Clamp	3
Model FC7020, Fiber Optic Cables 20m	5
Stripline Antenna, 10kHz-30MHz, 2m-3m adjustable height, 5.1m septum length (FSA S35012/41 or equivalent)	1
RF Load, Water cooled, 3 1/8" EIA, 15 kW CW (Diconex 17-0327 or equivalent)	1
3 1/8" EIA to 1 5/8" EIA Adapter	1
Log Periodic Antenna, 30-100MHz, includes stand with manual polarization and tilt (FSA S12018-21 or equivalent)	1
Model ATL80M1GM2, Log-Periodic Antenna, 80-1000MHz, 5000 Watts CW	1
Model ATH200M1G, Horn Antenna, 200-2000MHz	1
Model ATH800M6G, Horn Antenna, 800-6000MHz	1
Model ATH4G8, Horn Antenna, 4-8GHz, 500 Watts CW	1
Model ATH7G18M1, Horn Antenna, 7.5-18GHz, 500 Watts CW	1
Model TP1000B, Tripod, Non-metallic	4
Model AM8000, Antenna Mounting Adapter for Model ATH800M6G	1
Model BF1580, Bulkhead Feed-thru, 1 5/8 EIA to 1 5/8 EIA	2
Model BF7160, Bulkhead Feed-thru, 7-16 DIN to 7-16 DIN	1
Model UG-30D/U, Bulkhead Feed-thru, N female to N	2
Model CC41616080, Coaxial Cable, High Power, 1 5/8 EIA to 1 5/8 EIA, 8m	2
Model CC41616020, Coaxial Cable, High Power, 1 5/8 EIA to 1 5/8 EIA, 2m	2
Model CC41313080, Coaxial Cable, High Power, 7-16 DIN to 7-16 DIN, 8m	1
Model CC41313020, Coaxial Cable, High Power, 7-16 DIN to 7-16 DIN, 2m	1
Model CC11111080, Coaxial Cable, High Power, N male to N male, 8m	2
Model CC11111020, Coaxial Cable, High Power, N male to N male, 2m	2
All internal interconnect cables between system components	Included
Test System Control PC	1
Nexio BAT-EMC, Radiated Immunity Test Software*	1
Nexio BAT-EMC Validation, Start-Up, Training and Maintenance*	1



Amplifier Specifications (12500A225A)

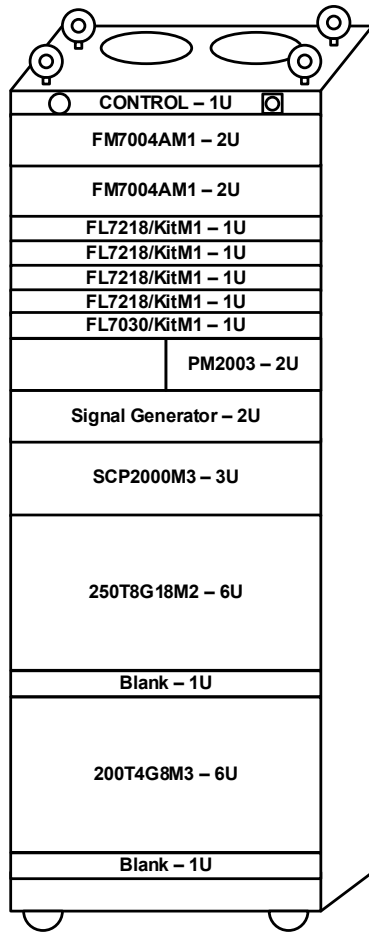
Size (H x W x D) 177.8 x 111.8 x 82.6 cm (70 x 44.1 x 32.5 in)
 Weight 500kg (1100lb)
 Power Input 190-240/380-480 VAC, 3-phase, Delta (4 wire), 45 kW

Amplifier Specifications (2000W1000D)

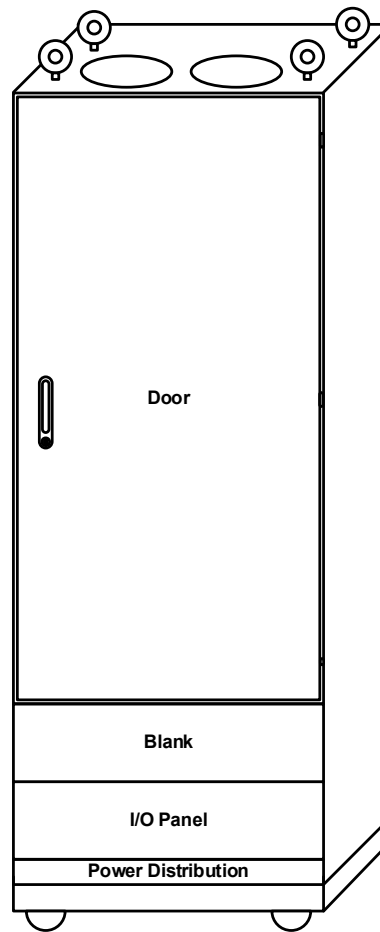
Size (H x W x D) 175.3 x 56.1 x 97.6 cm (69 x 22.1 x 38.4 in)
 Weight 218 kg (480 lb)
 Power Input 200-240 VAC Delta-connected (4-wire), 380-415 VAC Wye-connected (5-wire);
 50/60 Hz, three phase, 9000 watts

Amplifier Specifications (500S1G6A)

Size (H x W x D) 127 x 50.3 x 61 cm (50 x 19.8 x 24 in)
 Weight 136 kg (300 lbs)
 Power Input 200-260 VAC, 50/60 Hz, single phase, 3800 watts



Front



Rear

Control Rack Specifications

Size (H x W x D) 154.9 x 56.03 x 82.3 cm (61 x 22.06 x 32.4 in)

Weight 148.9 kg (328.25 lb)

Power Input 240VAC, 1-phase, 30 Amps