



**Model SSISOV100V10K18G
ISO 11451-2 Full Vehicle
AR Standard System
10kHz–18GHz
100V/m CW, 2 Meter Test Distance**

The SSISOV100V10K18G System is designed to generate up to 100 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.

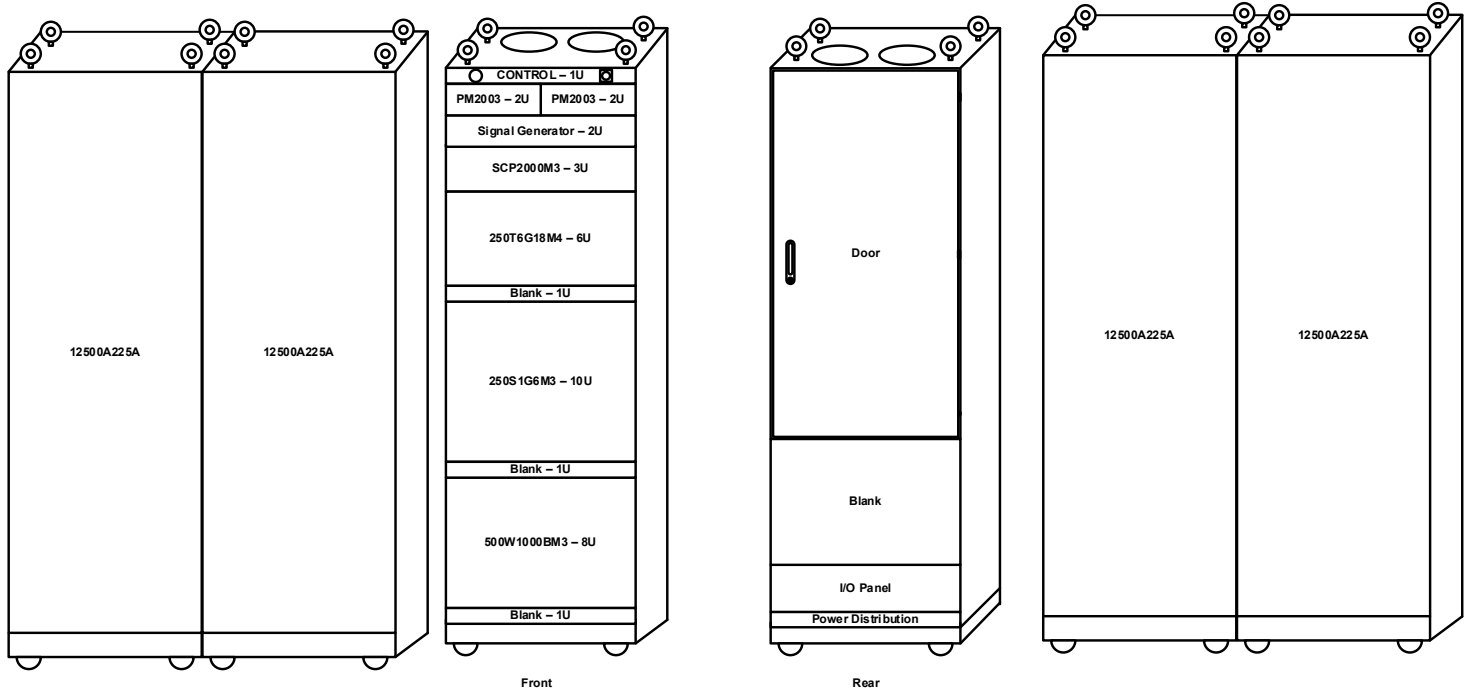
The SSISOV100V10K18G AR System consists of the AR equipment, listed herein. Please refer to individual product specification sheets for details. The export classification for this equipment is 3A001. This equipment is controlled for export in accordance with the U.S. Export Administration Regulations. Diversion contrary to U.S. law is prohibited.

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

SSISOV100V10K18G AR Standard System Summary Requirements	
Parameter	Description
System Frequency Range	10kHz–18GHz
CW Field Strength	100 V/m (100 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: 10 kHz–225 MHz, 12500 Watts Model 500W1000C: 80–1000 MHz, 500 Watts Model 250S1G6: 1–6 GHz, 250 Watts Model 250T6G18: 6–18 GHz, 250 Watts
Antenna Configuration	Dedicated antennas for each amp plus stripline to provide optimal field generation/uniformity: FSA S35012/41: 10kHz–30MHz FSA S12014/5: 20–210kHz Model ATH200M2G: 200–2000MHz Model ATH800M6G: 800–6000MHz Model ATH6G18: 6–18GHz
RF Cable Configuration	Four sets (one for each amp and associated antenna(s)) consisting of 2 and 12 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 input 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 500W1000C-R-N-R-N-NSP-NE, Amplifier, 80-1000MHz, 500 Watts CW	1
Model 250S1G6M3, Amplifier, 0.7-6GHz, 250 Watts CW	1
Model 250T6G18M4, TWTA Amplifier, 6-18GHz, 250 Watts CW	1
Model DC4256, Dual Directional Coupler, 10kHz-250MHz, 13000 Watts CW	1
Model DC6180A, Dual Directional Coupler, 80-1000MHz, 600 Watts CW	1
Model DC7210A, Dual Directional Coupler, 0.7-6GHz, 500 Watts CW	1
Model DC7445, Dual Directional Coupler, 6-18GHz, 3000 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 Dipole Antenna, 20-220MHz, includes stand with manual polarization and tilt (FSA S12014/5 with 1 5/8" EIA connector or equivalent)	1
Model ATH200M2G, Horn Antenna, 200-2000MHz	1
Model ATH800M6G, Horn Antenna, 800-6000MHz	1
Model ATH6G18, Horn Antenna, 6-18GHz, 500 Watts CW	1
Model AD1502, Adapter, WRD-650 to N female, End launch, 500 Watts CW	2
Model TP1000B, Tripod, Non-metallic	3
Model AM8000, Antenna Mounting Adapter for Model ATH800M6G	1
Model BF1580, Bulkhead Feed-thru, 1 5/8" EIA to 1 5/8" EIA	1
Model UG-30D/U, Bulkhead Feed-thru, N female to N	3
Model CC41616120, Coaxial Cable, High Power, 1 5/8" EIA to 1 5/8" EIA, 12m	1
Model CC41616020, Coaxial Cable, High Power, 1 5/8" EIA to 1 5/8" EIA, 2m	1
Model CC11111120, Coaxial Cable, High Power, N male to N male, 12m	3
Model CC11111020, Coaxial Cable, High Power, N male to N male, 2m	3
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

*Nexio items to be quoted as separate line items and are therefore not included in the price of the system

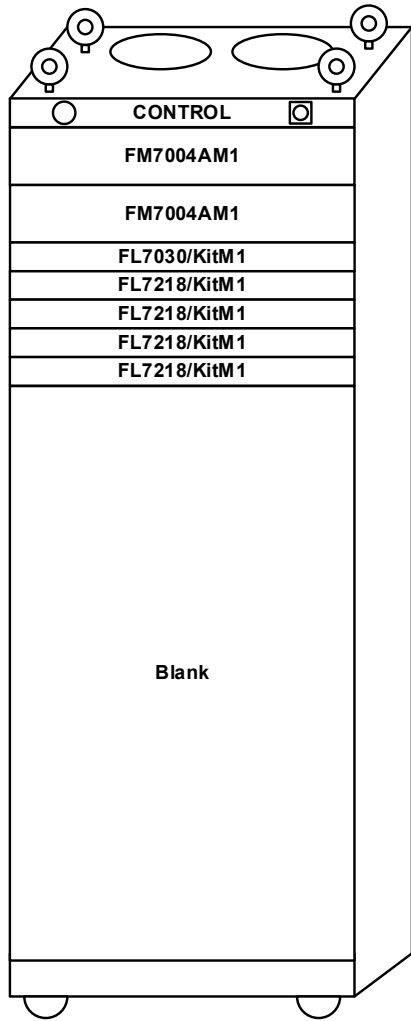


Control Rack Specifications

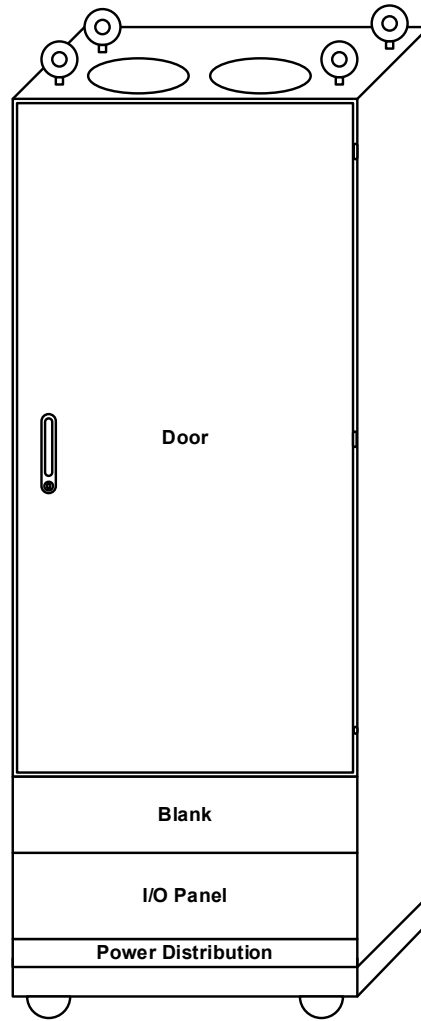
Size (H x W x D) 177.8 x 56.03 x 82.3 cm (70 x 22.06 x 32.4 in)
 Weight 172.7 kg (380 lb)
 Power Input 240 VAC, 1-phase, 30 Amps

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 (1100 lb)
 Power Input 190-240/380-480 VAC, 3-phase, Delta (4 wire), 45 kW



Front



Rear

Control Rack Specifications

Size (H x W x D) 177.8 x 56.03 x 82.3 cm (70 x 22.06 x 32.4 in)

Weight 48.0 kg (106.25 lb)

Power Input 240VAC, 1-phase, 30 Amps