



## rf/microwave instrumentation

**Model SSIEC3V3M**  
**IEC 61000-4-3**  
**AR Standard System**  
**80 MHz–6 GHz**  
**5.4 V/m CW Up to 3 Meter Test Distance**  
**1.5 x 1.5 meter UFA**

The SSIEC3V3M System is designed to develop a 1.5 x 1.5 meter uniform field area (UFA) of up to 5.4 V/m CW up to a 3m test distance for IEC 61000-4-3 testing from 80MHz-6GHz. The signal generation, control, and power monitoring equipment shall be mounted in a ventilated equipment rack along with the RF amplifiers.

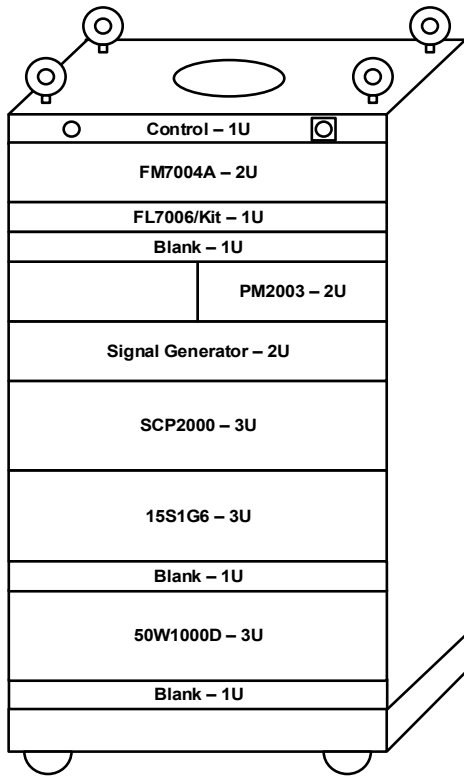
The SSIEC3V3M AR System consists of the AR equipment, listed herein. Please refer to individual product specification sheets for details. The export classification for this equipment is EAR99. This equipment is controlled for export in accordance with the U.S. Export Administration Regulations. Diversion contrary to U.S. law is prohibited.

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

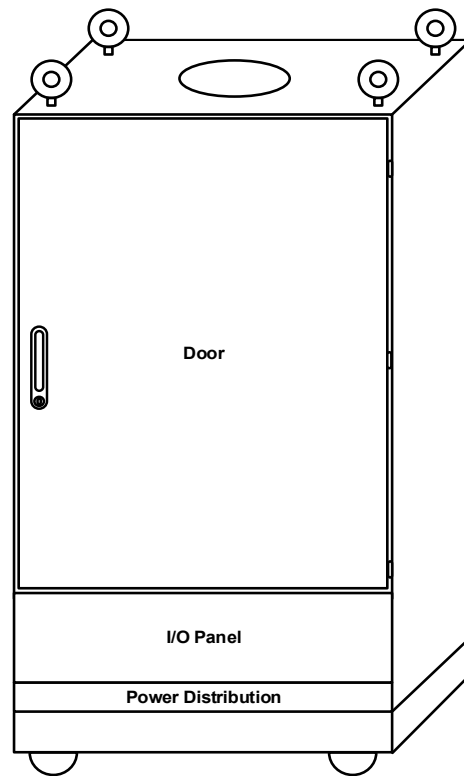
SSIEC3V3M AR Standard System Summary Requirements	
Parameter	Description
System Frequency Range	80 MHz–6 GHz
CW Field Strength	5.4 V/m (3 V/m w/ 80% AM per IEC 61000-4-3)
Test Distance	Up to 3 meters
UFA	1.5 x 1.5 meters per IEC 61000-4-3
Amplifier Configuration	Two RF amplifiers were chosen for this test system: Model 50W1000D: 80–1000 MHz, 50 Watts Model 15S1G6: 1–6 GHz, 15 Watts
Antenna Configuration	Dedicated antennas for each amp to provide optimal field generation and field uniformity: Model ATR80M6G: 80–1000 MHz Model ATT700M12G: 1–6 GHz bands.
RF Cable Configuration	Two sets (one for each amp/antenna) consisting of 2 and 5 meter lengths and designated bulkhead feedthroughs for each set.
Software Configuration	System and testing will be controlled using emcware® 5.0 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	EAR99
<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>	

<b>Model SSIEC10V2M Equipment List</b>	
<b>Component</b>	<b>Quantity</b>
Model 50W1000D-R-N-R-N-NE-R-U, Amplifier, 80–1000MHz, 150 Watts CW	1
Model 15S1G6M3, Amplifier, 700MHz–6GHz, 15 Watts CW	1
Model DC6180A, Dual Directional Coupler, 80–1000MHz, 600 Watts CW	1
Model DC7205A, Dual Directional Coupler, 0.7–6GHz, 250 Watts CW	1
Model SCP2000M3, System Controller, DC–18GHz	1
Model PM2003, Power Meter	1
Model PH2000A, Power Head, 10kHz–8GHz	2
Signal Generator, 9kHz–6GHz (Keysight N5171B-506 with options -1EM, -UNT, -UNW, -1CM110A)	1
Model FM7004AM1 Field Monitor, 4 channel	1
Model FL7006/KitM1 Electric Field Probe, 100kHz–6GHz, 0.5-800V/m	1
Model PS2000B, Probe Stand	1
Model ATR80M6G, Radiant Arrow Antenna, 80MHz–6GHz, 5000 Watts CW	1
Model ATT700M12G, Trapezoidal Log Periodic , 700 MHz–12 GHz, 600 Watts CW	1
Model 10006774, Antenna Adapter for TP1000B with ¼"-20 thread bolt to antenna	1
Model TP1000B, Non-metallic Tripod	1
All internal interconnect cables between system components	Included
Model UG-30D/U, Bulkhead Feed-through, Type N female	2
Model CC41111020, Low Loss Coaxial cable, N male connectors, 2m	2
Model CC41111050, Low Loss Coaxial cable, N male connectors, 5m	2
Test System Control PC	1
Model emcware® 5.0, Radiated Susceptibility, Conducted Immunity, and Emissions Test Software*	1
emcware® 5.0, 1-year support contract*	1

\*Model emcware® 5.0 and service contract to be quoted as separate line items and are therefore not included in the price of the system



**Front**



**Rear**

**Control Rack Specifications:**

Size (H x W x D) ..... 106.07 x 56.03 x 91.44 cm (41.76 x 22.06 x 36.0 in)

Weight ..... 73.9 kg (163 lb)

Power Input ..... 240VAC, 1-phase, 30 Amps