



**Model SSMIL50V10K18G
MIL-STD-461D/E/F/G
AR Standard System
10kHz–18GHz
50V/m CW at 1 Meter Test Distance**

The SSMIL50V10K18G System is designed to develop a 50 V/m field level at a 1m test distance for MIL-STD-461D/E/F/G testing from 10 kHz to 18 GHz. The signal generation, control, and power monitoring equipment shall be mounted in a ventilated equipment rack along with the RF amplifiers.

The SSMIL50V10K18G 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.

MIL-STD-461 AR Standard System Summary Requirements	
Parameter	Description
System Frequency Range	10 kHz–18 GHz
CW Field Strength	50 V/m
Test Distance	1 meter
Amplifier Configuration	Four (4) RF amplifiers were chosen for this test system: Model 600A400, Amplifier, 10kHz–400MHz, 600 Watts CW Model 150W1000B: 80–1000 MHz, 150 Watts Model 60/40S1G18B, RF Amplifier, 1–18 GHz, 60/40 Watts CW
Antenna Configuration	Dedicated antennas for each amp to provide optimal field generation: Model ATE10K100MM2: 10 kHz–100 MHz, E-Field Generator Model ATR80M6G: 80 MHz–6 GHz Log Periodic Model DRH-118: 1–18 GHz Horn
RF Cable Configuration	Three 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® software which is preloaded and delivered on a new laptop 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 SCP2000M3. 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

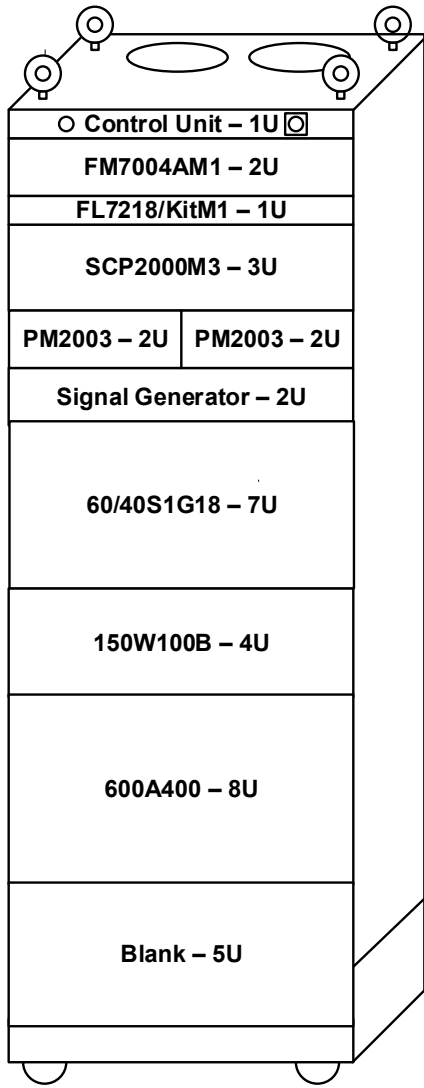
Assumptions:

3 dB power margin on amplifiers to accommodate reasonable chamber and system losses

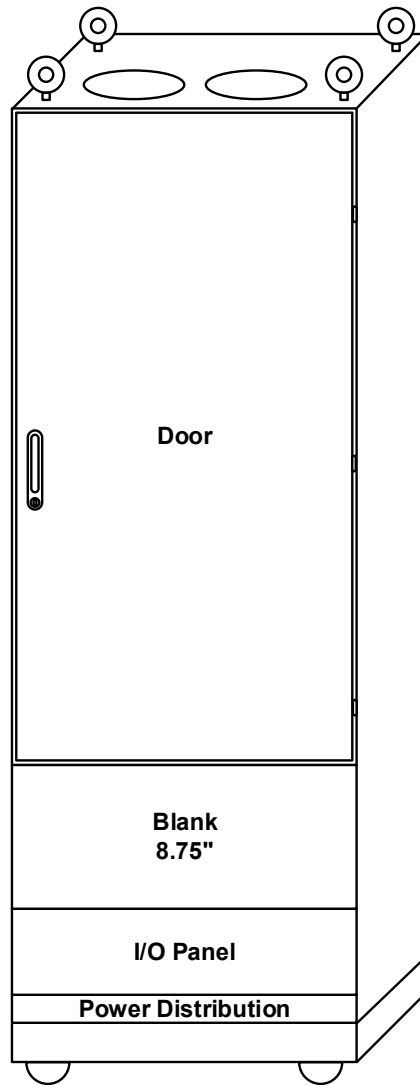
Field strength calculations are based on free-space conditions

Model SSMIL50V2M18G Equipment List	
Component	Quantity
Model 600A400-R-N-R-716-NSP-NE, Amplifier, 10kHz–400MHz, 600 Watts CW	1
Model 10046524, Dual Directional Coupler, 10kHz–400MHz, 1000 Watts CW	1
Model ATE10K100M, E-Field Generator, 10kHz–100MHz, 3000 Watts CW	1
Model 150W1000B-RN-RN-NE, Amplifier, 80–1000MHz, 150 Watts CW	1
Model DC6080AM1, Dual Directional Coupler, 80–1000MHz, 500 Watts CW	1
Model ATR80M6G, Log Periodic Antenna, 80MHz–1GHz, 5000 Watts CW	1
Model TP1000B, Non-metallic Tripod	2
Model 60/40S1G18B-R-N-NE-U, RF Amplifier, 1–18 GHz, 60/40 Watts CW	1
Model DC7200A, Dual Directional Coupler, 0.7–6GHz, 250 Watts CW	1
Model DC7435A, Dual Directional Coupler, 4–18GHz, 200 Watts CW	1
Model DRH-118, Horn Antenna, 1–18 GHz, 300 Watts CW	1
Model SCP2000M3, System Controller, DC–18 GHz	1
Model PM2003, Power Meter, 3 channels	2
Model PH2005, Power Head, 500 kHz–18GHz, -60dBm to +20dBm	2
Model PH2000A, Power Head, 10 kHz–8GHz, -60dBm to +20dBm	2
Analog Signal Generator, 9kHz–20GHz, rear panel connectors (Keysight N5173B-520 EXG X-series with options - UNW, -UNT, -1E1, -1EM, -UK6, -1CM110A or equivalent)	1
Model FC7020, Fiber Optic Cable Set, 20m	1
Model FM7004AM1, Field Monitor	1
Model FL7030/KitM1, Field Probe Kit, 5KHz–30 MHz, 1.5-300V/m	1
Model FL7218/KitM1, Field Probe Kit, 2MHz–18 GHz, 2-1000V/m	1
Model PS2000B, Probe Stand	1
Model BF7160, Bulkhead Feed-through, 7/16 DIN female	1
Model CC41111020, Low Loss Coaxial cable, N male, N male connectors, 2m	1
Model CC41313020, Low Loss Coaxial cable, 7/16 DIN male connectors, 2m	2
Model CC41111050, Low Loss Coaxial cable, N male, N male connectors, 5m	1
Model CC41313050, Low Loss Coaxial cable, 7/16 DIN male connectors, 5m	2
All internal interconnect cables between system components	Included
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

Rack Physical Specifications:

Size (H x W x D) 164.21 x 56.03 x 82.3 cm (64.65 x 22.06 x 32.4 in)

Weight 136 kg (300 lb)

Power Input 240VAC, 1-phase, 30 Amps