



# AR System

## Model SSMIL200V2M40G

- 2 MHz – 40 GHz
- 200 V/m at 1 Meter Test Distance

### Features:

- Customized to meet your needs
- Performance guarantee
- Global support and service

### Application Standards:

- MIL-STD-461D/E/F/G Testing

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[www.arworld.us/systems](http://www.arworld.us/systems)

The SSMIL200V2M40G System is designed to develop a 200 V/m field level at a 1 m test distance for MIL-STD-461D/E/F/G testing from 2 MHz to 40 GHz. The signal generation, control, and power monitoring equipment shall be mounted in a ventilated equipment rack along with the RF amplifiers.

The SSMIL200V2M40G 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.

AR RF/Microwave Instrumentation  
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ISO 9001:2015 Certified  
ISO 17025:2017 Accredited



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## Model SSMIL200V2M40G System Summary Requirements

Parameter	Description
System Frequency Range	2 MHz – 40 GHz
CW Field Strength	200 V/m
Test Distance	1 Meter
Amplifier Configuration	Six (6) RF amplifiers were chosen for this test system: Model 2500A225B: 10 kHz – 225 MHz, 2500 W Model 500W1000C: 80 – 1000 MHz, 500 W Model 125S1G6C: 1 – 6 GHz, 125 W Model 40S6G18A-L: 6 – 18 GHz, 40 W Model 40T18G26A: 18 – 26.5 GHz, 40 W Model 40T26G40A: 26.5 – 40 GHz, 40 W
Antenna Configuration	Dedicated antennas for each amp to provide optimal field generation: Model ATE10K30MAM2, Field Generator, 10 kHz – 30 MHz Antenna, 25 – 100 MHz, 3000 W CW (TDK HPBA-2510) Model ATR80M6GM2, Log-periodic Antenna, 80 MHz – 6 GHz Model ATH200M2G, Horn Antenna, 200 MHz – 2 GHz Model ATH800M6G, Horn Antenna, 1 – 6 GHz Model ATH6G18A, Horn Antenna, 6 – 18 GHz Model ATH18G27A: 18 – 26.5 GHz High Gain Horn Model ATH26G40A: 26.5 – 40 GHz High Gain Horn
RF Cable Configuration	Four 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 PC as part of overall system.
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
Assumptions: 3 dB power margin on amplifiers to accommodate reasonable chamber and system losses. Field Strength calculations are based on free-space conditions.	



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## Model SSMIL200V2M40G Equipment List

Component	Quantity
Model 2500A225B-R-N-R-716-SPR-XX , RF Amplifier, 10 kHz – 225 MHz, 2500 W	1
Model 500W1000C-R-N-R-N-NSP-NE , RF Amplifier, 80 MHz – 1 GHz, 500 W CW	1
Model 125S1G6C-R-N-R-N-NE-SPR, RF Amplifier, 1 – 6 GHz, 125 W CW	1
Model 40S6G18A-L-R-N-R-N-NE-U, RF Amplifier, 6 – 18 GHz, 40 W CW	1
Model 40T18G26A, 18 – 26.5 GHz, 40 W CW	1
Model 40T26G40A, 26.5 – 40 GHz, 40 W CW	1
Model DC2035A, Dual Directional Coupler, 10 kHz – 225 MHz, 3500 W	1
Model DC6180A, Dual Directional Coupler, 80 MHz – 1 GHz, 600 W	1
Model DC7205A, Dual Directional Coupler, 700 MHz – 6 GHz, 250 W	1
Model DC7435A, Dual Directional Coupler, 6 – 18 GHz, 200 W	1
Model DC7530, Dual Directional Coupler, 18 – 26.5 GHz, 300 W CW	1
Model DC7620, Dual Directional Coupler, 26.5 – 40 GHz, 200 W, CW	1
Model ATE10K30MAM2, Field Generator, 10 kHz – 30 MHz	1
Antenna, 25 – 100 MHz, 3000 W CW (TDK HPBR-2510)	1
Model ATR80M6GM2, Log-periodic Antenna, 80 MHz – 6 GHz, 2000 W CW	1
Model ATH200M2G, Horn Antenna, 200 MHz – 2 GHz, 1000 W CW	1
Model ATH800M6G, Horn Antenna, 1 – 6 GHz, 1500 W CW	1
Model ATH6G18A, Horn Antenna, 6 – 18 GHz, 650 W CW	1
Model AD1502, Adapter, WRD-650 to N (female)	1
Model ATH18G27A, High Gain Horn Antenna, 18 – 26.5 GHz	1
Model ATH26G40A, High Gain Horn Antenna, 26.5 – 40 GHz	1
Model TP1000B, Non-metallic Tripod	1
Model SCP2000M3, System Controller, DC – 18 GHz	1
Model SCP2000M4, System Controller, DC – 40 GHz	1
Signal Generator, 9 kHz – 20 GHz (Keysight N5173B-520 with options -1EM, -UNT, -UNW, -1E1, -UK6, -1CM110A)	1
Signal Generator, 9kHz – 40GHz (Keysight N5173B-540 with options -UNW, -UNT, -1E1, -1EM, -UK6, -1CM110A)	1
Model PM2003, Power Meter, 3 channels	2
Model PH2005, Power Head, 500 kHz – 18 GHz, -70 to +20 dBm	2
Model PH2010, Power Head, 30MHz – 40GHz, -70dBm to +20 dBm	2
Model FM7004AM1, Field Monitor	1
Model FL8200/KitM1, Field Probe Kit, 5 kHz – 200 MHz, 0.3-500 V/m	1
Model FL8040/KitM1, Field Probe Kit, 20 MHz – 40 GHz, 2-1000 V/m	1
Model PS2000B, Probe Stand, Non-Conductive	1
Model CC11111020, Coaxial Cable, DC – 18 GHz, N connectors, 2 m long	1
Model CC11111050, Coaxial Cable, DC – 18 GHz, N connectors, 5 m long	1
Model CC41313020, Coaxial Cable, DC – 6 GHz, 7/16 DIN connectors, 2 m long	1
Model CC41313050, Coaxial Cable, DC – 6 GHz, 7/16 DIN connectors, 5 m long	1
Model WF2630, WR-42 flexible and twistable waveguide assembly, 18–26.5 GHz 30.5 cm long	1

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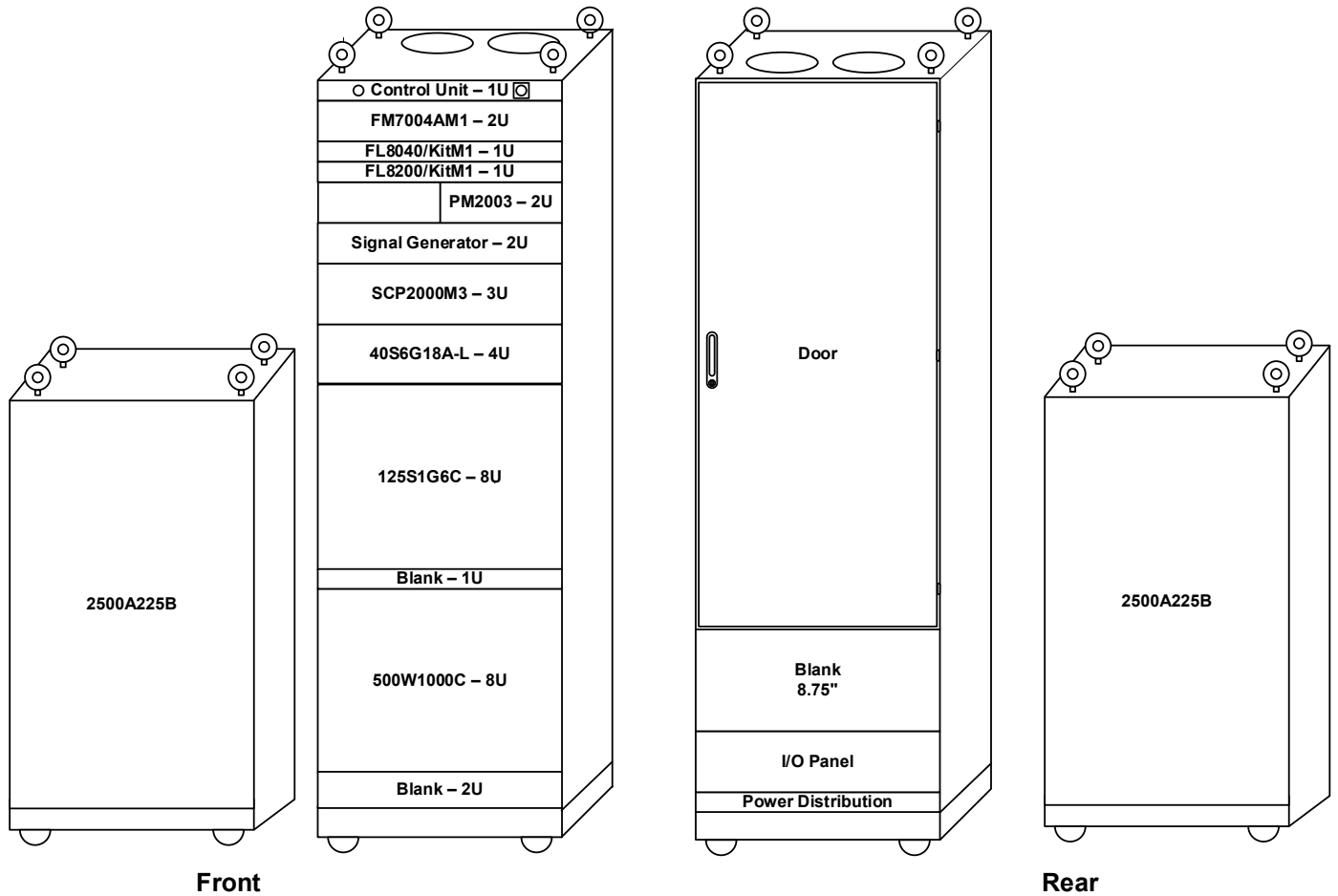
Component	Quantity
Model WF4030, WR-28 flexible and twistable waveguide assembly, 26.5 - 40 GHz 30.5 cm long	1
All internal Interconnect cables between system components	1
Test System Control PC	1
Model emcware® Radiated Susceptibility, Conducted Immunity, and Emissions Test Software*	1
emcware® 1-year support contract*	1

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



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### SSMIL200V2M40G Control Rack



Control Rack Specifications		Units
Size (H x W x D)	172.75 x 56.03 x 91.44	cm
	68.01 x 22.06 x 36	in
Weight	109	kg
	240	lb
Power Input	240 VAC, 1-phase, 30 A	

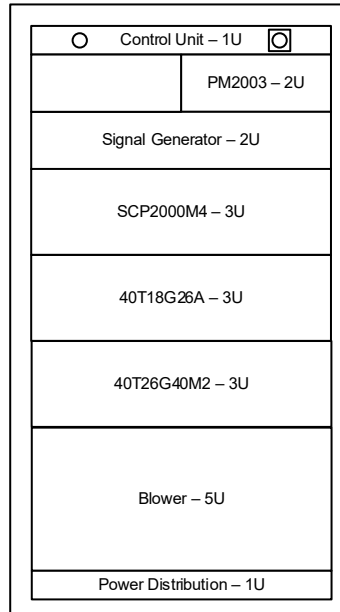
2500A225B Amplifier Rack Specifications		Units
Size (H x W x D)	132.1 x 56.1 x 82.4	cm
	52.0 x 22.1 x 32.5	in
Weight	159	kg
	350	lb
Power Input	200 - 240 VAC or 380 - 415 VAC, 3-phase, 8.5 kW maximum	



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### SSMIL200V2M40G Shielded Rack



Shielded Rack Specifications		Units
Size (H x W x D)	97.54 x 56.03 x 92.46	cm
	38.4 x 22.06 x 36.40	in
Weight	109	kg
	240	lb
Power Input	240 VAC, 1-phase, 30 A	

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To order AR Products, call: 215.723.8181. For an applications engineer, call: 800.933.8181. Direct to Service call: 215.723.0275 or email: [service@arworld.us](mailto:service@arworld.us)

For Faxing Orders: 866.859.0582 (Orders Only Please) [info@arworld.us](mailto:info@arworld.us)

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