



**Model SC1000,
M1 through M5
RF Test System Controller
DC-40GHz**

The Model SC1000 is an RF test system controller designed to facilitate the concurrent use of up to three signal generators, four power amplifiers, and four different RF loads for broadband RF testing. This device allows multiple pieces of field generation equipment to be integrated into one test set-up, alleviating the need to constantly change cables due to the frequency limitations of the individual pieces

The Model SC1000 offers IEEE-488, RS-232, and manual control of the RF signal routing, and provides front panel indication via a 4 line vacuum fluorescent display. System interlock capability is also provided by sensing a switch closure. If the closure is not detected, the input signal is interrupted. The input signal is also interrupted during signal re-routing in order to assure cold switching of amplifiers and loads.

Additionally, a switchable positive 12VDC signal and several open collector outputs are supplied. These signals can be used to provide external switch capability such as the antenna feed select of the Model TC1000/2000.

SPECIFICATIONS

Electrical	
Input Power.....	90-260 VAC, 50-60 Hz
Voltage Outputs.....	+12 VDC (switchable), 1A +24 VDC (unswitched) 500mA
Open Collector Outputs.....	800 mA current sinking each
RF Connections.....	Rear Panel bulkhead (Type N female SW 3,4,7) (Type SMA female SW 1,2,5,6)

SC1000M4

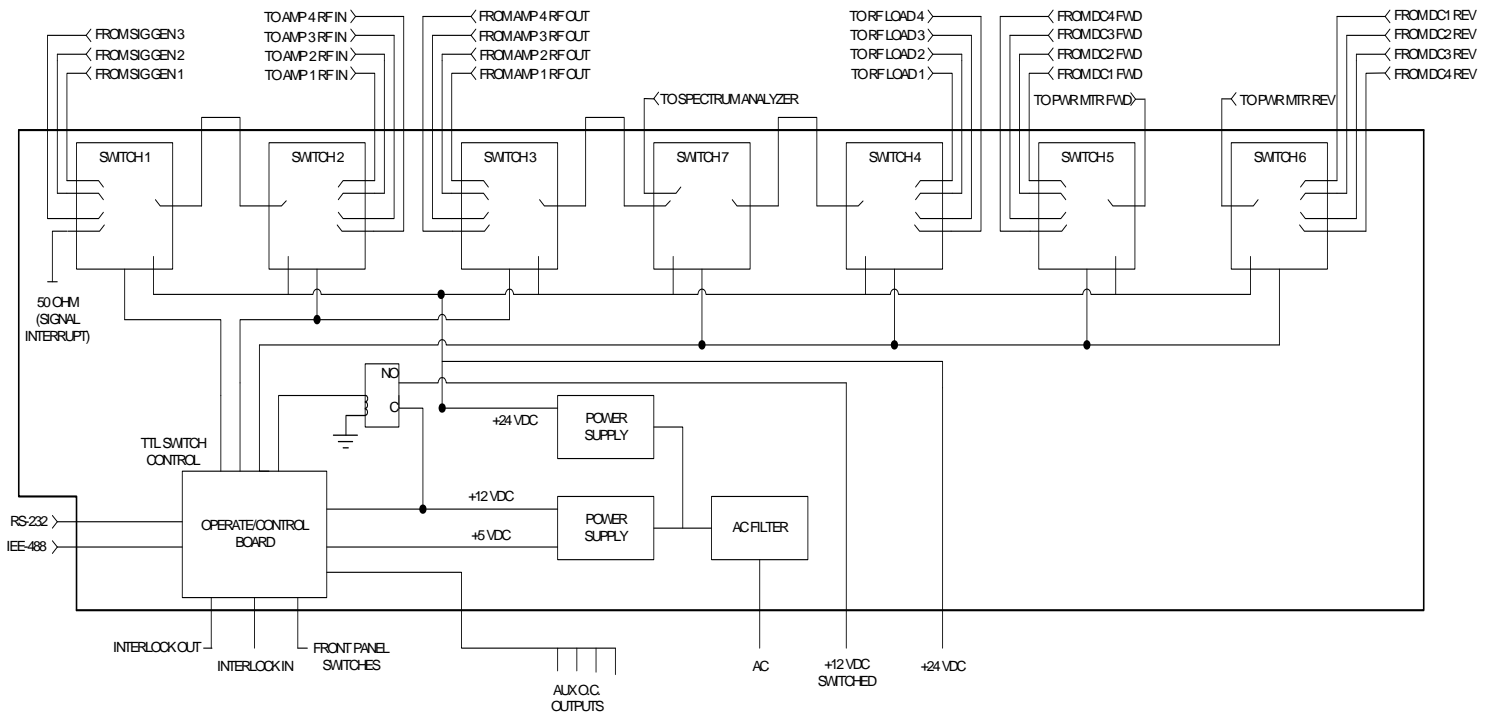
RF Power Handling Capability	Switch 1,2,5,6	Switch 1,2,5,6	Switch 3,4,7
0-.1 GHz	400 Watts	450 Watts	1200 Watts
0-.5 GHz	200 Watts	275 Watts	600 Watts
.5-1 GHz	150 Watts	200 Watts	450 Watts
1-4 GHz	75 Watts	100 Watts	250 Watts
4-8 GHz	55 Watts	75 Watts	175 Watts
8-12 GHz	45 Watts	55 Watts	150 Watts
12-18GHz	35 Watts	50 Watts	----
18-40GHz	25 Watts	----	----

NOTE: For VSWR above 1.1:1, Derate power according to the following

VSWR	Derating Factor
1.5:194
2.0:188
2.5:183
3.0:178
3.5:173
4.0:170

Remote Interfaces.....	IEEE-488, RS-232
Weight	6.8 kg (15.0 lb)
Size (W x H x D).....	48.26 x 13.34 x 44.77 cm (19.0 x 5.25 x 17.625 in)

BLOCK DIAGRAM



MODEL CONFIGURATIONS

MODEL NUMBER	SWITCHES INCLUDES						
	1	2	3	4	5	6	7
SC1000	•	•	•	•	•		
SC1000M1	•	•	•	•	•	•	•
SC1000M2	•	•			•		
SC1000M3	•	•			•	•	
SC1000M4	•	•			•	•	
SC1000M5	•	•			•	•	•

SC1000	Controller designed for multi-amplifier/multi-load application where reverse power measurement is not necessary.
SC1000M1	Controller designed for multi-amplifier/multi-load applications with forward and reverse power measurement and emissions feedback.
SC1000M2	Controller accommodates forward power measurement and higher power/higher frequency amplifier and load combinations where switching and cable losses need to be minimized.
SC1000M3	Controller accommodates forward and reverse power measurement and higher power/higher frequency amplifier and load combinations where switching and cable losses need to be minimized.
SC1000M4	Controller accommodates forward and reverse power measurement and higher power/higher frequency (up to 40 GHz) amplifier and load combinations where switching and cable losses need to be minimized.
SC1000M5	Controller accommodates forward and reverse power measurement, higher power/higher frequency amplifier and load combinations where switching and cable losses need to be minimized, and emissions feedback.