

# NSG 4070B APPLICATION FOR FORD EMC-CS-2009

## Test parameter

Standard:	Ford EMC-CS-2009
Frequency range:	1 MHz to 400 MHz
Level 1:	64 to 100 dBμA
Level 2:	70 to 106 dBμA
Modulation:	e.g. CW, 1 kHz AM 80% (Peak conservation)
Test method:	Substitution method with optional monitoring probe
Monitoring probe:	only for information (substitu- tions method)

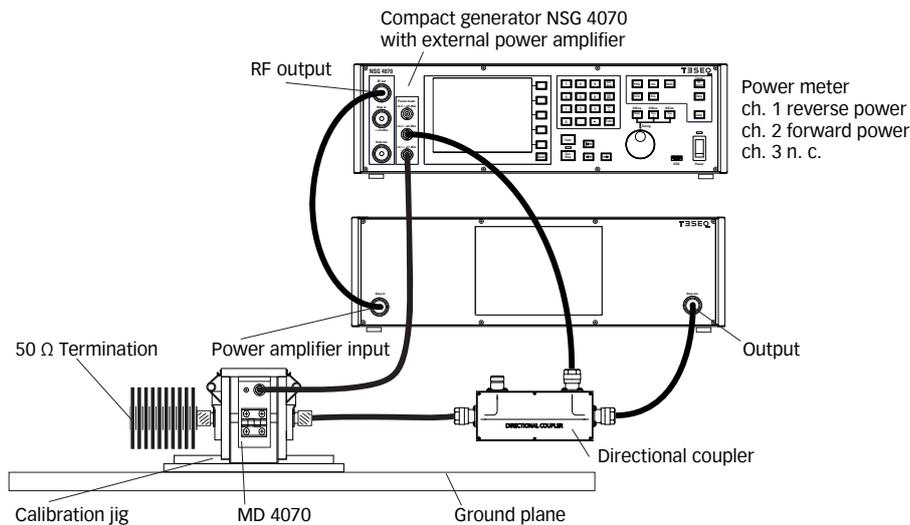
## Equipment

Signal generation:	NSG 4070B-0
Modulator:	included in NSG 4070B-0
Power meter:	3x included in NSG 4070B-0
Power amplifier:	CBA 400M-110
Directional coupler:	DCP 0100A
Current injection probe:	CIP 9136A
Monitoring probe:	MD 4070
Calibration jig:	PCJ 9201B
Termination:	50 Ω 10 W
Attenuation:	20 dB 10 W
Software:	incl. in NSG 4070 or optional C5I or WIN 6000



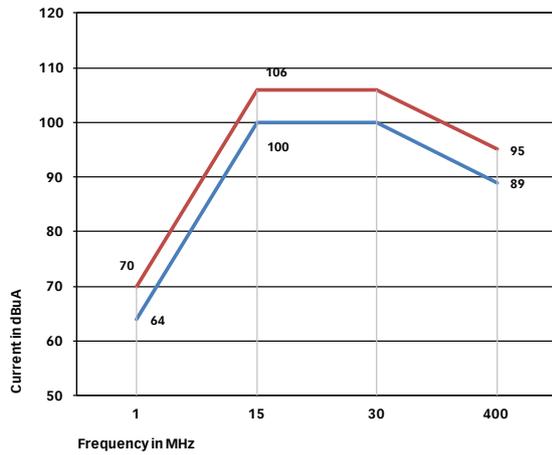
**WARNING:** The power meter inputs are very sensitive. It is the user's responsibility to ensure that the selected test levels does not damage the equipment. Any hardware/setup changes should be calculated before starting the test.

## Calibration set-up for monitoring probe



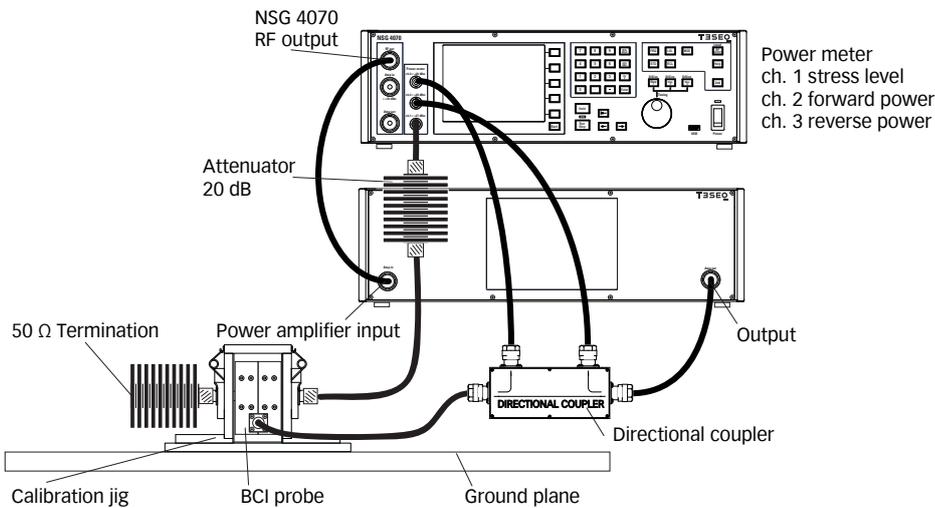
### Remarks:

The monitoring probe MD 4070 needs to be calibrated in the way of its use (active, passive or with switching at a specific frequency from active to passive).



Test level — for Ford EMC-CS-2009 Level 1  
 Test level — for Ford EMC-CS-2009 Level 2

### Calibration set-up for level 1 and 2

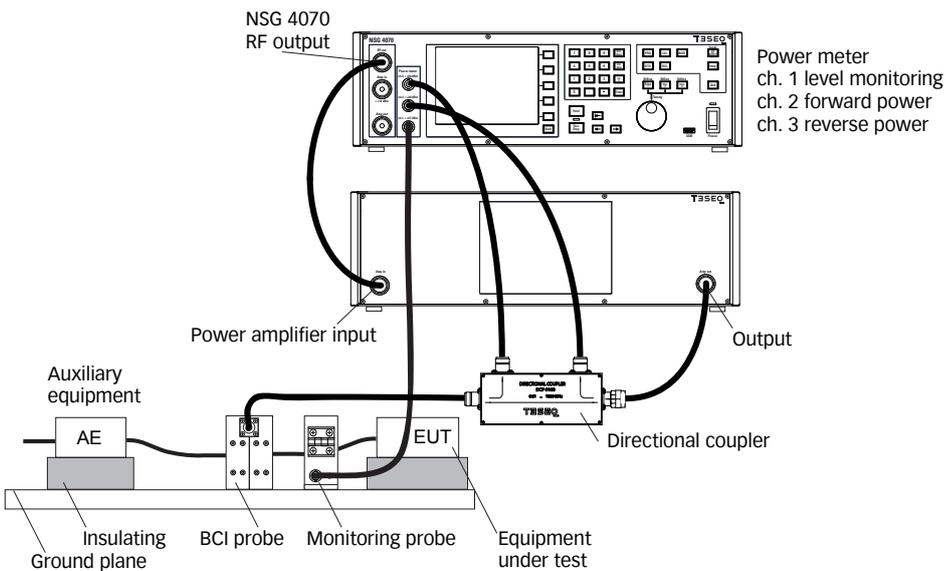


Attenuator: 20 dB, 10 W  
 Termination: 50 Ω 10 W

Power meter  
 ch. 1 stress level  
 ch. 2 forward power  
 ch. 3 reverse power

Remarks:  
 Power meter channel 1 needs to be protected with a 20 dB attenuator.

### Test set-up with monitoring probe



Power meter  
 ch. 1 level monitoring  
 ch. 2 forward power  
 ch. 3 reverse power

Use of MD 4070 in the passive mode.  
 Caution:  
 The use of the MD 4070 in the active mode during tests with stress levels above 86 dBuA could damage power meter channel 1 of NSG 4070.