

SRM-3000 with Tri-axial Isotropic E-Field Antenna

Uncertainties	SRM-3000 with 10 dB cable and 3-axis E field antenna								SRM-3000 with cable and 3-axis E field antenna										
	Lower Frequency:		50	75	300	600	900	1400	1800	2200	50		75	300	600	900	1400	1800	2200
	Upper Frequency:		75	300	600	900	1400	1800	2200	2700	75	300	600	900	1400	1800	2200	2700	
<b>Considered Cable &amp; Additional Attenuation</b>	10.0 dB	10.0 dB	10.0 dB	10.5 dB	10.7 dB	10.9 dB	11.1 dB	11.3 dB		0.0 dB	0.0 dB	0.0 dB	0.5 dB	0.7 dB	0.9 dB	1.1 dB	1.3 dB		
<b>Primary DATA for Uncertainty in dB</b>																			
Uncertainty level of basic unit (1)	1.1 dB	1.1 dB	1.1 dB	1.1 dB	1.1 dB	1.1 dB	1.1 dB	1.1 dB		1.1 dB	1.1 dB	1.1 dB	1.1 dB	1.1 dB	1.1 dB	1.1 dB	1.1 dB		
Calibration uncertainty of cable attenuation (2)	0.2 dB	0.2 dB	0.2 dB	0.2 dB	0.2 dB	0.2 dB	0.2 dB	0.2 dB		0.2 dB	0.2 dB	0.2 dB	0.2 dB	0.2 dB	0.2 dB	0.2 dB	0.2 dB		
Calibration uncertainty of antenna (2)	1.0 dB	1.0 dB	1.5 dB	1.5 dB	1.5 dB	1.5 dB	1.5 dB	1.0 dB		1.0 dB	1.0 dB	1.5 dB	1.5 dB	1.5 dB	1.5 dB	1.0 dB	1.0 dB		
Ellipse Ratio of antenna (2)	0.5 dB	0.5 dB	0.5 dB	0.5 dB	0.8 dB	1.3 dB	1.5 dB	1.8 dB		0.5 dB	0.5 dB	0.5 dB	0.5 dB	0.8 dB	1.3 dB	1.5 dB	1.8 dB		
Mismatch uncertainty: Basic unit / Cable (2)	0.2 dB	0.2 dB	0.2 dB	0.2 dB	0.2 dB	0.2 dB	0.2 dB	0.2 dB		0.2 dB	0.2 dB	0.2 dB	0.2 dB	0.2 dB	0.2 dB	0.2 dB	0.2 dB		
Mismatch uncertainty: Cable / Antenna (2)	0.5 dB	0.5 dB	0.5 dB	0.5 dB	0.5 dB	0.4 dB	0.3 dB	0.4 dB		0.5 dB	0.5 dB	0.5 dB	0.5 dB	0.5 dB	0.4 dB	0.3 dB	0.4 dB		
Mismatch uncertainty: Basic unit / Antenna (2)	0.4 dB	0.4 dB	0.4 dB	0.3 dB	0.3 dB	0.3 dB	0.2 dB	0.2 dB		1.2 dB	1.2 dB	1.1 dB	1.0 dB	1.0 dB	0.8 dB	0.7 dB	0.7 dB		
<b>Primary DATA for Uncertainty in %</b>																			
Uncertainty level of basic unit (1)	13.50 %	13.50 %	13.50 %	13.50 %	13.50 %	13.50 %	13.50 %	13.50 %		13.50 %	13.50 %	13.50 %	13.50 %	13.50 %	13.50 %	13.50 %	13.50 %		
Calibration uncertainty of cable attenuation (2)	2.33 %	2.33 %	2.33 %	2.33 %	2.33 %	2.33 %	2.33 %	2.33 %		2.33 %	2.33 %	2.33 %	2.33 %	2.33 %	2.33 %	2.33 %	2.33 %		
Calibration uncertainty of antenna (2)	12.20 %	12.20 %	18.85 %	18.85 %	18.85 %	18.85 %	12.20 %	12.20 %		12.20 %	12.20 %	18.85 %	18.85 %	18.85 %	18.85 %	12.20 %	12.20 %		
Ellipse Ratio of antenna (2)	5.93 %	5.93 %	5.93 %	5.93 %	9.65 %	15.48 %	18.85 %	22.32 %		5.93 %	5.93 %	5.93 %	5.93 %	9.65 %	15.48 %	18.85 %	22.32 %		
Mismatch uncertainty: Basic unit / Cable (2)	2.20 %	2.20 %	2.20 %	2.20 %	2.20 %	2.20 %	2.20 %	2.20 %		2.33 %	2.20 %	2.20 %	2.20 %	2.20 %	2.20 %	2.20 %	2.20 %		
Mismatch uncertainty: Cable / Antenna (2)	6.50 %	6.50 %	6.30 %	5.80 %	5.80 %	5.00 %	4.00 %	4.50 %		5.93 %	6.50 %	6.30 %	5.80 %	5.80 %	5.00 %	4.00 %	4.50 %		
Mismatch uncertainty: Basic unit / Antenna (2)	4.60 %	4.60 %	4.50 %	3.80 %	3.80 %	3.20 %	2.50 %	2.70 %		14.82 %	14.60 %	14.10 %	12.20 %	11.90 %	10.10 %	7.80 %	8.60 %		
<b>Standard Uncertainty in %</b>																			
Uncertainty level of basic unit (1)	6.89 %	6.89 %	6.89 %	6.89 %	6.89 %	6.89 %	6.89 %	6.89 %		6.89 %	6.89 %	6.89 %	6.89 %	6.89 %	6.89 %	6.89 %	6.89 %		
Calibration uncertainty of cable attenuation (2)	1.19 %	1.19 %	1.19 %	1.19 %	1.19 %	1.19 %	1.19 %	1.19 %		1.19 %	1.19 %	1.19 %	1.19 %	1.19 %	1.19 %	1.19 %	1.19 %		
Calibration uncertainty of antenna (2)	6.23 %	6.23 %	9.62 %	9.62 %	9.62 %	9.62 %	6.23 %	6.23 %		6.23 %	6.23 %	9.62 %	9.62 %	9.62 %	9.62 %	6.23 %	6.23 %		
Ellipse Ratio of antenna (2)	3.43 %	3.43 %	3.43 %	3.43 %	5.58 %	8.95 %	10.90 %	12.90 %		3.43 %	3.43 %	3.43 %	3.43 %	5.58 %	8.95 %	10.90 %	12.90 %		
Mismatch uncertainty: Basic unit / Cable (2)	1.56 %	1.56 %	1.56 %	1.56 %	1.56 %	1.56 %	1.56 %	1.56 %		1.65 %	1.56 %	1.56 %	1.56 %	1.56 %	1.56 %	1.56 %	1.56 %		
Mismatch uncertainty: Cable / Antenna (2)	4.61 %	4.61 %	4.47 %	4.11 %	4.11 %	3.55 %	2.84 %	3.19 %		4.20 %	4.61 %	4.47 %	4.11 %	4.11 %	3.55 %	2.84 %	3.19 %		
Mismatch uncertainty: Basic unit / Antenna (2)	3.26 %	3.26 %	3.19 %	2.70 %	2.70 %	2.27 %	1.77 %	1.91 %		10.51 %	10.35 %	10.00 %	8.65 %	8.44 %	7.16 %	5.53 %	6.10 %		
<b>Combined Standard Uncertainty:</b>	11.56 %	11.56 %	13.63 %	13.41 %	14.11 %	15.54 %	14.83 %	16.44 %		15.17 %	15.17 %	16.60 %	15.73 %	16.22 %	16.96 %	15.73 %	17.43 %		
<b>Expanded Uncertainty @ 95% confidence:</b>	22.66 %	22.66 %	26.71 %	26.27 %	27.65 %	30.46 %	29.07 %	32.23 %		29.73 %	29.74 %	32.53 %	30.82 %	31.79 %	33.25 %	30.83 %	34.17 %		
<b>Standard Factor Final:</b>	<b>1.50</b>	<b>1.50</b>	<b>1.61</b>	<b>1.59</b>	<b>1.63</b>	<b>1.70</b>	<b>1.67</b>	<b>1.75</b>		<b>1.68</b>	<b>1.68</b>	<b>1.76</b>	<b>1.71</b>	<b>1.74</b>	<b>1.78</b>	<b>1.71</b>	<b>1.80</b>		
<b>Standard Factor Final (dB):</b>	<b>1.8 dB</b>	<b>1.8 dB</b>	<b>2.1 dB</b>	<b>2.0 dB</b>	<b>2.1 dB</b>	<b>2.3 dB</b>	<b>2.2 dB</b>	<b>2.4 dB</b>		<b>2.3 dB</b>	<b>2.3 dB</b>	<b>2.4 dB</b>	<b>2.3 dB</b>	<b>2.4 dB</b>	<b>2.5 dB</b>	<b>2.3 dB</b>	<b>2.6 dB</b>		

Temperature : **20 °C**  
 Température Uncertainty **15 °C** to **30 °C** 1.1 dB Operating Range: **-10 °C** to **50 °C**

(1) Includes all influencing components (e.g. attenuator, linearity and calibration uncertainty) for temperatures from 15 °C to 30 °C.  
 For temperature range from -10 °C to 50 °C the uncertainty increases from 1.1 dB to 2.2 dB.

(2) The temperature response is negligible.