

Spectrum Monitoring and Surveillance

Remote Spectrum Monitor Family of Interference Hunting Solutions

MS27101A Indoor Spectrum Monitoring



MS27102A Outdoor Spectrum Monitor System



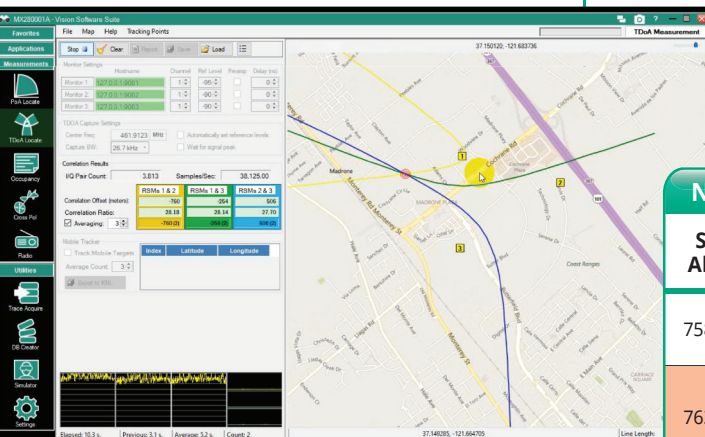
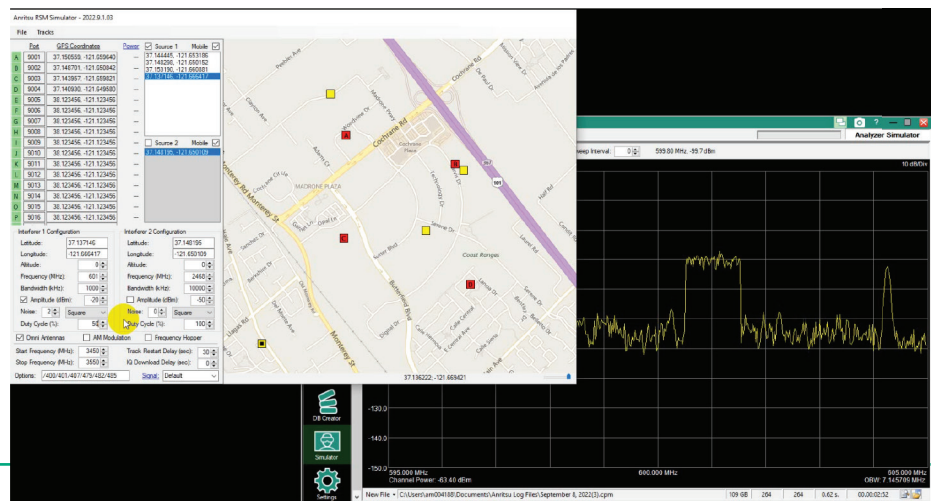
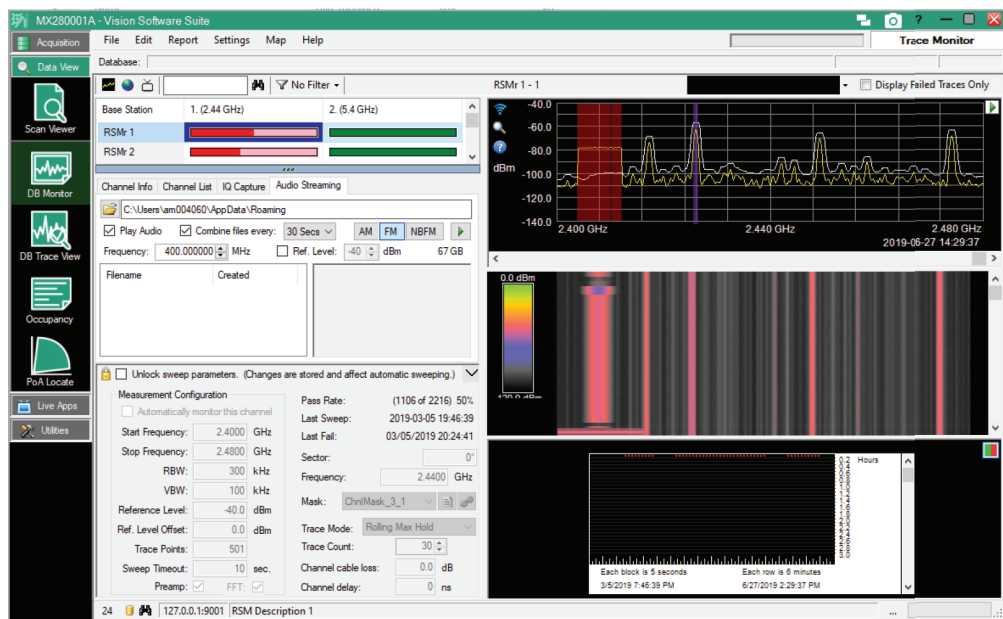
MS27103A Satellite Monitoring System



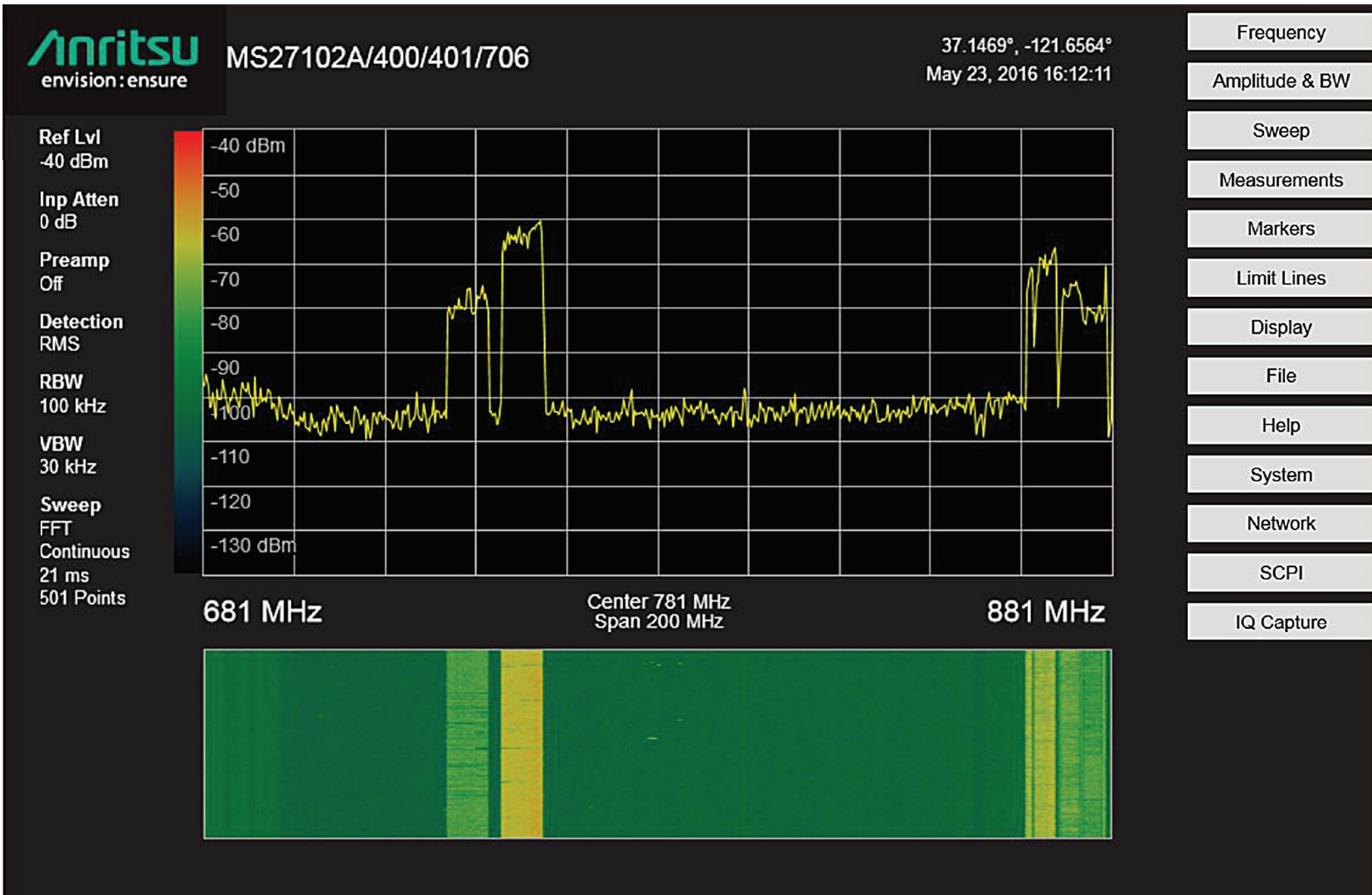
MS27201A Remote Spectrum Monitor

Control through Vision, Web Server or Custom Application

The Vision™ software platform works with Anritsu's spectrum monitoring hardware to automate the process of collecting measurement data, providing useful information about network health and use of the spectrum. Using multiple hardware probes covering a wide geographical area, Vision presents a comprehensive picture of spectral activity to assist users in monitoring the spectrum for unusual activity. Automated spectrum measurements, setting of alarms with e-mail notifications and geo-locating signal sources are features of the Vision software platform.

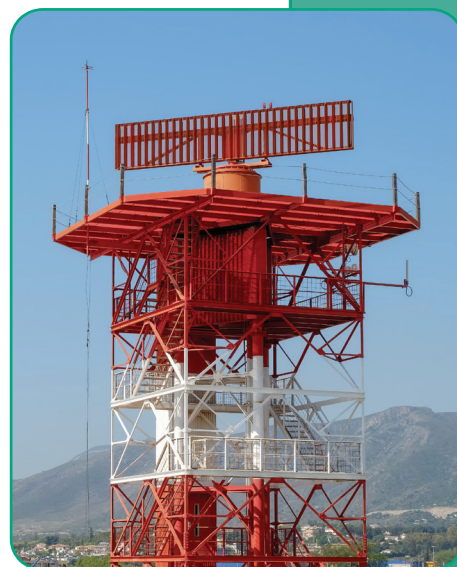


Spectrum Monitoring Solutions to facilitate and identify interference signals



MS27100A Features:

- Frequency range from 9 kHz to 6 GHz
- Sweep speed up to 24 GHz/s
- Linux operating system
- Integrated web server to view, control and conduct measurements via web browser
- IQ block and streaming mode with time stamping for TDOA measurements
- Hardware watchdog timer to insure long-term stability for remotely deployed monitors
- Low spur levels for accurate signal discovery
- 20 MHz instantaneous FFT bandwidth
- Update firmware and add new features remotely
- MS27201A



5G Frequency Range

Band	Uplink (MHz)	Downlink (MHz)	Channel Bandwidths
n1	1920-1980	2110-2170	5 to 50
n2	1850-1910	1930-1990	5 to 40
n3	1710-1785	1805-1880	5 to 50
n5	824-849	869-894	3 to 25
n7	2500-2570	2620-2690	5 to 50
n8	880-915	925-960	5 to 35
n12	699-716	729-746	3, 5, 10, 15
n13	777-787	746-756	5, 10
n14	788-798	758-768	5, 10
n18	815-830	860-875	5, 10, 15
n20	832-862	791-821	5, 10, 15, 20
n24	1625-1660	1525-1559	5, 10
n25	1850-1915	1930-1995	5 to 45
n26	814-849	859-894	3 to 30
n28	703-748	758-803	3 to 30
n29	—	717-728	5, 10
n30	2305-2315	2350-2360	5, 10
n31	452.5-457.5	462.5-467.5	3, 5
n34	2010-2025	2010-2025	5, 10, 15
n38	2570-2620	2570-2620	5 to 40
n39	1880-1920	1880-1920	5 to 40
n40	2300-2400	2300-2400	5 to 100
n41	2496-2690	2496-2690	5 to 100
n46	5150-5925	5150-5925	10 to 100
n47	5855-5925	5855-5925	10, 20, 30, 40
n48	3550-3700	3550-3700	5 to 100
n50	1432-1517	1432-1517	5 to 80
n51	1427-1432	1427-1432	5
n53	2483.5-2495	2483.5-2495	5, 10
n54	1670-1675	1670-1675	5
n65	1920-2010	2110-2200	5, 10, 15, 20, 50
n66	150-162	794-806	5 to 45
n67	173.2-173.4	806-821	5, 10, 15, 20
n68	220-222	821-824	5, 10, 15
n70	1695-1710	1995-2020	5 to 25
n71	663-698	617-652	5 to 35
n72	451-456	461-466	3, 5
n74	1427-1470	1475-1518	5, 10, 15, 20
n75	—	1432-1517	5 to 50
n76	—	1427-1432	5
n77	3300-4200	3300-4200	10 to 100
n78	3300-3800	3300-3800	10 to 100
n79	4400-5000	4400-5000	10 to 100
n80	1710-1785	—	5 to 40
n81	880-915	—	5, 10, 15, 20
n82	832-862	—	5, 10, 15, 20
n83	703-748	—	5 to 30
n84	1920-1980	—	5 to 50
n85	699-716	728-746	3, 5, 10, 15
n86	1710-1780	—	5, 10, 15, 20, 40
n87	410-415	420-425	5
n88	412-417	422-427	3, 5
n89	824-849	—	5, 10, 15, 20
n90	2496-2690	—	5 to 100
n91	832-862	1427-1432	5, 10
n92	832-862	1432-1517	5, 10, 15, 20
n93	880-915	1427-1432	5, 10
n94	880-915	1432-1517	5, 10, 15, 20
n95	2010-2025	—	5, 10, 15
n96	5925-7125	5925-7125	20 to 100
n97	2300-2400	—	5 to 100
n98	1880-1920	—	5 to 40
n99	1625-1660	—	5, 10
n100	874-880	919.4-925	3, 5
n101	1900-1910	1900-1910	5, 10
n102	5925-6425	5925-6425	20 to 100
n104	6425-7125	6425-7125	20 to 100
n105	663-703	612-652	5 to 35
n106	896-901	935-940	3
n109	703-733	1432-117	5 to 50
n110	1390-1395	1432-1435	3



Frequency Allocations for Public Safety (MHz)

Frequency (MHz)	Allocation
25-50	764-776
150-162	794-806
173.2-173.4	806-821
220-222	821-824
450-470	851-866
470-512	866-889

US GSM Channels (MHz)

#	DL	UL	BW
1	395	385	9.6
2	425	415	9.6
3	454	444	9.6
4	482	472	9.6
5	512	502	9.6
6	542	532	9.6
7	571	561	9.6
8	601	591	9.6
9	630	620	9.6
10	659	649	9.6
11	688	678	9.6
12	717	707	9.6
13	746	736	9.6
14	775	765	9.6
15	804	794	9.6
16	833	823	9.6
17	862	852	9.6
18	891	881	9.6
19	920	910	9.6
20	949	939	9.6
21	978	968	9.6
22	1007	997	9.6
23	1036	1026	9.6
24	1065	1055	9.6
25	1094	1084	9.6
26	1123	1113	9.6
27	1152	1142	9.6
28	1181	1171	9.6
29	1210	1200	9.6
30	1239	1229	9.6
31	1268	1258	9.6
32	1297	1287	9.6
33	1326	1316	9.6
34	1355	1345	9.6
35	1384	1374	9.6
36	1413	1403	9.6
37	1442	1432	9.6
38	1471	1461	9.6
39	1500	1490	9.6
40	1529	1519	9.6
41	1558	1548	9.6
42	1587	1577	9.6
43	1616	1606	9.6
44	1645	1635	9.6
45	1674	1664	9.6
46	1703	1693	9.6
47	1732	1722	9.6
48	1761	1751	9.6
49	1790	1780	9.6
50	1819	1809	9.6
51	1848	1838	9.6
52	1877	1867	9.6
53	1906	1896	9.6
54	1935	1925	9.6
55	1964	1954	9.6
56	1993	1983	9.6
57	2022	2012	9.6
58	2051	2041	9.6
59	2080	2070	9.6
60	2109	2099	9.6
61	2138	2128	9.6
62	2167	2157	9.6
63	2196	2186	9.6
64	2225	2215	9.6
65	2254	2244	9.6
66	2283	2273	9.6
67	2312	2302	9.6
68	2341	2331	9.6
69	2370	2360	9.6
70	2399	2389	9.6
71	2428	2418	9.6
72	2457	2447	9.6
73	2486	2476	9.6
74	2515	2505	9.6
75	2544	2534	9.6
76	2573	2563	9.6
77	2602	2592	9.6
78	2631	2621	9.6
79	2660	2650	9.6
80	2689	2679	9.6
81	2718	2708	9.6
82	2747	2737	9.6
83	2776	2766	9.6
84	2805	2795	9.6
85	2834	2824	9.6
86	2863	2853	9.6
87	2892	2882	9.6
88	2921	2911	9.6
89	2950	2940	9.6
90	2979	2969	9.6
91	3008	2998	9.6
92	3037	3027	9.6
93	3066	3056	9.6
94	3095	3085	9.6
95	3124	3114	9.6
96	3153	3143	9.6
97	3182	3172	9.6
98	3211	3201	9.6
99	3240	3230	9.6
100	3269	3259	9.6
101	3298	3288	9.6
102	3327	3317	9.6
103	3356	3346	9.6
104	3385	3375	9.6
105	3414	3404	9.6
106	3443	3433	9.6
107	3472	3462	9.6
108	3501	3491	9.6
109	3530	3520	9.6
110	3559	3549	9.6
111	3588	3578	9.6
112	3617	3607	9.6
113	3646	3636	9.6
114	3675	3665	9.6
115	3704	3694	9.6
116	3733	3723	9.6
117	3762	3752	9.6
118	3791	3781	9.6
119	3820	3810	9.6
120	3849	3839	9.6
121	3878	3868	9.6
122	3907	3897	9.6
123	3936	3926	9.6
124	3965	3955	9.6
125	3994	3984	9.6
126	4023	4013	9.6
127	4052	4042	9.6
128	4081	4071	9.6
129	4110	4100	9.6
130	4139	4129	9.6
131	4168	4158	9.6
132	4197	4187	9.6
133	4226	4216	9.6
134	4255	4245	9.6
135	4284	4274	9.6
136	4313	4303	9.6
137	4342	4332	9.6
138	4371	4361	9.6
139	4400	4390	9.6
140	4429	4419	9.6
141	4458	4448	9.6
142	4487	4477	9.6
143	4516	4506	9.6
144	4545	4535	9.6
145	4574	4564	9.6
146	4603	4593	9.6
147	4632	4622	9.6
148	4661	4651	9.6
149	4690	4680	9.6
150	4719	4709	9.6
151	4748	4738	9.6
152	4777	4767	9.6
153	4806	4796	9.6
154	4835	4825	9.6
155	4864	4854	9.6
156	4893	4883	9.6
157	4922	4912	9.6
158	4951	4941	9.6
159	4980	4970	9.6
160	5009	4999	9.6
161	5038	5028	9.6
162	5067	5057	9.6
163	5096	5086	9.6
164	5125	5115	9.6
165	5154	5144	9.6
166	5183	5173	9.6
167	5212	5202	9.6
168	5241	5231	9.6
169	5270	5260	9.6
170	5299	5289	9.6
171	5328	5318	9.6
172	5357	5347	9.6
173	5386	5376	9.6
174	5415	5405	9.6
175	5444	5434	9.6
176	5473	5463	9.6
177	5502	5492	9.6
178	5531	5521	9.6
179	5560	5550	9.6
180	5589	5579	9.6
181	5618	5608	9.6
182	5647	5637	9.6
183	5676	5666	9.6
184	5705	5695	9.6
185	5734	5724	9.6
186	5763	5753	9.6
187	5792	5782	9.6
188	5821	5811	9.6
189	5850	5840	9.6
190	5879	5869	9.6
191	5908	5898	9.6
192	5937	5927	9.6
193	5966	5956	9.6
194	5995	5985	9.6
195	6024	6014	9.6
196	6053	6043	9.6