

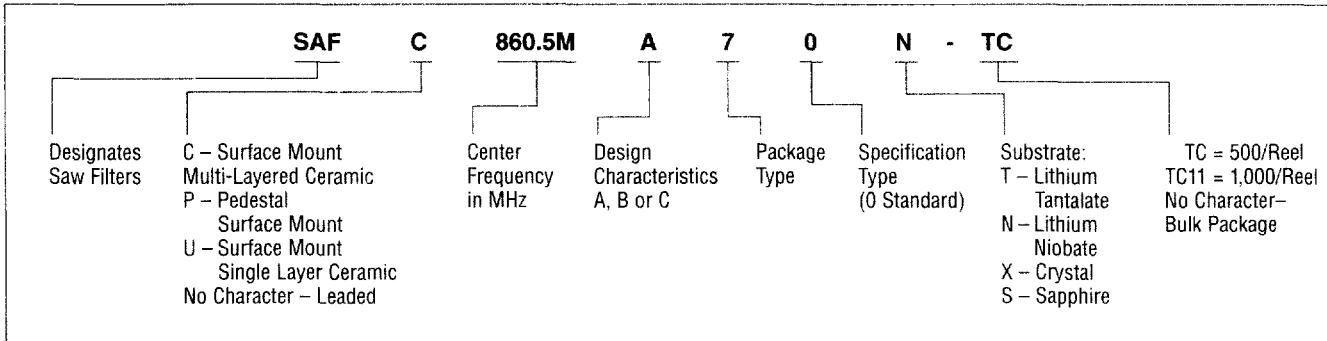
FEATURES

- Operates over a wide frequency range (70MHz – 1.5GHz)
- Steep skirts
- Low passband ripple
- Linear phase
- High selectivity

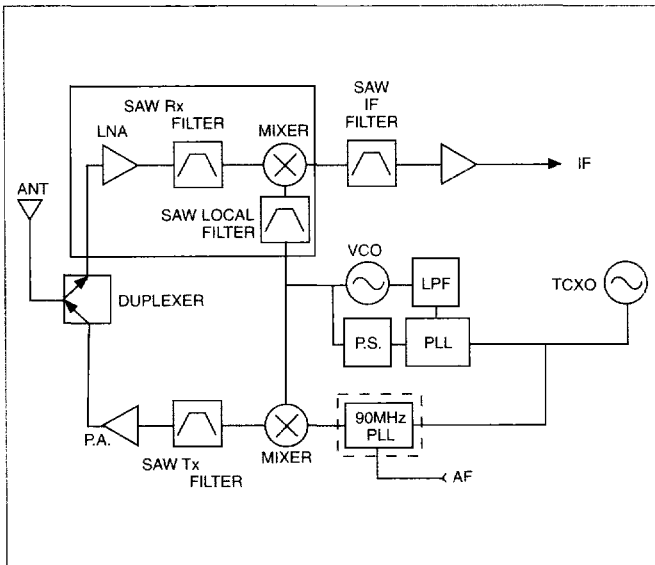
APPLICATIONS

- Cellular Phone: E-AMPS, E-TACS and GSM
- Cordless Phone: CT-1, CT-2, ISM, DECT, and PHS
- Land Mobile Radio (LMR)
- 915 MHz ISM
- Pager

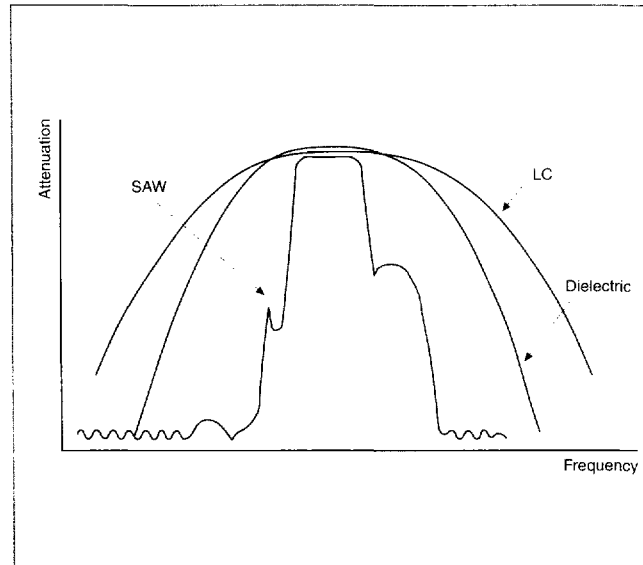
PART NUMBERING SYSTEM



TYPICAL CELLULAR SYSTEM AND SAW POSSIBILITIES



ATTENUATION VS. FREQUENCY – GENERAL COMPARISON OF FILTER CHARACTERISTICS



SAW FILTERS SPECIFICATIONS



SAF Series

Part Number	App.	Center Freq. (MHz)	I.L. (dB) max.*	Bandwidth (MHz)	Attenuation (dB)	Ripple (dB) max.	VSWR	Max. GDT (μs)	Input/Output Impedance	Pkg. Style
E-AMPS/ADC										
SAFC836.5MA90N-TC11	RF (TX)	836.5	4	824 to 849	4	2	2.5	N/S	50 ohm // 0pF	SC33
				869 to 894	20					
				920 to 2000	35					
SAFC836.5MC90T-TC11	RF (TX)	836.5	3.8	824 to 849	3.8	1.8	2	N/S	50 ohm // 0pF	SC33
				869 to 894	25					
				920 to 2000	32					
SAFC881.5MA90T-TC11	RF (TX)	881.5	4	869 to 894	4	2	2.5	N/S	50 ohm // 0pF	SC33
				DC to 820	40					
				824 to 849	20					
				1000 to 2000	35					
SAFC881.5MC90T-TC11	RF (TX)	881.5	3.5	869 to 894	3.8	1.5	2	N/S	50 ohm // 0pF	SC33
				650 to 820	35					
				824 to 849	30					
				950 to 1100	35					
				1100 to 2000	32					
SAFC83.160MA40X-TC	1st IF	83.160	5.0	fo ± 15kHz	3.0	1.5	N/S	10.0	850 ohm // -2.0pF	SC511
				83.04 to 83.10	20 min.					
				83.22 to 83.28	20 min.					
SAFC83.160MC40X-TC	1st IF	83.160	5.0	fo ± 15kHz	3.0	1.5	N/S	8.0	850 ohm // -2.0pF	SC511
				83.113 and 83.207	8 min.					
				83.04 to 83.10	20 min.					
				83.22 to 83.28	20 min.					
SAFC83.161MA40X-TC	1st IF	83.161	5.0	fo ± 15kHz	3.0	1.5	N/S	10.0	850 ohm // -2.0pF	SC511
				83.041 to 83.101	20 min.					
				83.221 to 83.281	20 min.					
SAFC85.380ME30X-TC11	1st IF	85.38	5.5	fo ± 13kHz	3	1.5	N/S	10	870 ohm // -1.7pF	SC59
				85.26 to 85.32	25					
				85.44 to 85.50	25					
SAFC86.850MA40X-TC	1st IF	86.850	5.0	fo ± 15kHz	3.0	1.5	N/S	10.0	850 ohm // -2.0pF	SC511
				86.73 to 86.79	20 min.					
				86.91 to 86.87	20 min.					
SAFC130.4MSC10T-TC11	1st IF	130.38	5.5	fo ± 630kHz	3	N/S	N/S	0.8	435 ohm // 0.8uH	SC57
				135.33	40					
				139.65 to 140.91	45					
E-TACS										
SAFC888.5MA70N-TC	RF (TX)	888.5	6.0	872 to 905	6.0 max.	4.0	3.5	N/S	50 ohm // 0pF	SC44
				917 to 950	12.0 min.					
SAFC933.5MA70N-TC	RF (RX)	933.5	6.0	917 to 950	6.0 max.	4.0	3.5	N/S	50 ohm // 0pF	SC44
				872 to 905	12.0 min.					
SAFC91.987MB40X-TC	1st IF	91.987	5.0	fo ± 13kHz	3.0	1.5	N/S	10.0	850 ohm // -1.5pF	SC511
				91.837 to 91.987	12.0 min.					
				92.037 to 92.087	12.0 min.					
GSM/EGSM/NMT900										
SAFC902.5MA90N-TC11	RF (TX)	902.5	4	890 to 915	4	1.7	2.5	N/S	50 ohm // 0pF	SC33
				935 to 960	20					
SAFC902.5MC90T-TC11	RF (TX)	902.5	3.5	890 to 915	3.5	1.5	2.1	N/S	50 ohm // 0pF	SC33
				DC to 820	45					
				845 to 870	30					
				935 to 960	25					
				980 to 1500	40					
				1500 to 2000	40					
SAFC947.5MA90N-TC11	RF (RX)	947.5	4	935 to 960	4	1.7	2.5	N/S	50 ohm // 0pF	SC33
				890 to 915	4					
SAFC947.5MC90T-TC11	RF (TX)	947.5	3.5	935 to 960	3.5	1.5	2.3	N/S	50 ohm // 0pF	SC33
				440 to 890	40					
				890 to 915	35					
				1005 to 1035	30					
				1070 to 1500	40					
				1500 to 2000	40					
SAFC897.5MA70N-TC	RF (TX)	897.5	6.0	880 to 915	6.0 max.	4.0	4.0	N/S	50 ohm // 0pF	SC44
	EGSM			925 to 935	40 min.					
SAFC942.5MA70N-TC	RF (RX)	942.5	6.0	934 to 960	7 min.	4.0	4.0	N/S	50 ohm // 0pF	SC44
	EGSM			925 to 960	6.0 max.					
SAFC71.0MC50T-TC	1st IF	71.0	7.0	fo ± 70kHz	3.0	2.5	N/S	2.0	910 ohm // -7.2pF	SC713
				70.6 and 71.4	15 min.					
				70.4 and 71.6	30 min.					
				fo ± 80kHz	3					
SAFC246.000MWF10X-TC11	1st IF	246	6	245.6 and 245.4	20	1.5	N/S	2	950 ohm // -2.7pF	SC57
				244.8 and 247.2	25					
				243 to 244.4	40					
				247.6 to 249	35					

N/S: Not Specified.

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SAW FILTERS SPECIFICATIONS

SAF Series

Part Number	App.	Center Freq. (MHz)	I.L. (dB) max.*	Bandwidth (MHz)	Attenuation (dB)	Ripple (dB) max.	VSWR	Max. GDT (μs)	Input/Output Impedance	Pkg. Style
PDC 1.5, 800, MULTIBAND										
SAFC950MB90N-TC11	RF (TX) 800	950	4	940 to 960	4	2	N/S	2.5	50 ohm // 0pF	SC33
				680 to 810	45					
				810 to 830	45					
				1050 to 2000	35					
SAFC820ME90N-TC11	RF (RX) 800	820	2.5	810 to 830	2.5	1.5	N/S	2.5	50 ohm // 0pF	SC33
				550 to 570	22					
				680 to 700	25					
				940 to 960	32					
				1070 to 1090	35					
				1100 to 2000	22					
SAFC1441MC90T-TC11	RF (TX) 1.5	1441	3	1429 to 1453	3	1.5	N/S	2	50 ohm // 0pF	SC33
				1251 to 1275	25					
				1477 to 1501	15					
				1607 to 1631	35					
				1785 to 1809	35					
				1429 to 1453	2.5					
SAFC1441MF90T-TC11	RF (TX) 1.5	1441	2.5	1251 to 1275	25	1.5	N/S	2	50 ohm // 0pF	SC33
				1477 to 1501	15					
				1607 to 1631	35					
				1785 to 1809	35					
				1429 to 1453	2.5					
				1251 to 1275	25					
SAFC1489MC90T-TC11 SAFC1489MF90T-TC11	RF (RX) 1.5	1489	3	1477 to 1501	3	1.5	N/S	2	50 ohm // 0pF	SC33
			2.5	1477 to 1501	2.5					
				1217 to 1241	35					
				1347 to 1371	25					
				1429 to 1453	15					
				1542 to 1566	15					
				1607 to 1631	35					
				1737 to 1761	35					
				1477 to 1501	2					
				1429 to 1453	15					
SAFC1489MC90S-TC11	RF (RX) 1.5	1489	2	1603 to 1631	25	1.2	N/S	2.7	50 ohm // 0pF	SC33
				1737 to 1761	35					
				940 to 1015	3.5					
				680 to 700	20					
SAFC942.5MK90N-TC11	RF (TX) multiband	942.5	3.5	740 to 755	20	2	N/S	3	50 ohm // 0pF	SC33
				810 to 830	25					
				870 to 885	30					
				810 to 830	2.4 max.					
				875 to 895	15					
SAFC820T877.5MJ80T-TC	RF (RX) digital multiband	819.0 band	2.7	925 to 940	20	1.2	2.3	N/S	50 ohm // 0pF	SC44
				940 to 960	30					
	RF (RX) analog multiband	877.5 band	2.7	870 to 885	2.7 max.					
				925 to 940	20					
				940 to 960	25					
SAFC820T877.5ME80T-TC	RF (RX) digital multiband	819.0 band	2.7	810 to 830	2.7 max.	1.2	2.3	N/S	50 ohm // 0pF	SC44
				745 to 763	20					
				925 to 940	25					
				940 to 960	30					
	RF (RX) analog multiband	877.5 band	2.7	870 to 885	2.4 max.					
			925 to 940	20						
			940 to 960	25						
SAFC130.000MC16X-TC	1st IF	130.000	5.0	fo ± 16kHz	3.0	0.5	N/S	5.0	740 ohm // -1.8pF	SC57
			129.9 to 130.1	20 min.						
			129.8 to 130.2	40 min.						
SAFC130.000MC10X-TC	1st IF	130.000	5.0	fo ± 19kHz	3.0	0.5	N/S	5.0	740 ohm // -1.8pF	SC57
			129.9 to 130.1	20 min.						
			129.8 to 130.2	40 min.						
CT-1										
SAF886ME10T	RF	886.0	3.5	884 to 888	3.5 max.	1.5	N/S	N/S	50 ohm // 10nH	F11
				840 to 846	40 min.					
SAFC886ME70T-TC	RF	886.0	3.5	884 to 888	3.5 max.	1.5	N/S	N/S	50 ohm // 10nH	SC44
				840 to 846	40 min.					
SAF931ME10T	RF	931.0	3.5	929 to 933	3.5 max.	1.5	N/S	N/S	50 ohm // 10nH	F11
				884 to 891	40 min.					
SAFC931ME70T-TC	RF	931.0	3.5	929 to 933	3.5 max.	1.5	N/S	N/S	50 ohm // 10nH	SC44
				884 to 891	40 min.					
SAF914ME10T	RF	914.0	3.5	913 to 915	3.5 min.	1.5	N/S	N/S	50 ohm // 10nH	F11
				891 to 894	30 min.					
				934 to 937	15 min.					
SAFC914ME70T-TC	RF	914.0	3.5	913 to 915	3.5 max.	1.5	N/S	N/S	50 ohm // 10nH	SC44
				891 to 894	30 min.					
				934 to 937	15 min.					
SAF959ME10T	RF	959.0	3.5	958 to 960	3.5 max.	1.5	N/S	N/S	50 ohm // 10nH	F11
				936 to 939	30 min.					
				979 to 982	20 min.					
SAFC959ME70T-TC	RF	959.0	3.5	958 to 960	3.5 max.	1.5	N/S	N/S	50 ohm // 10nH	SC44
				936 to 939	30 min.					
				979 to 982	20 min.					

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SAF Series

Part Number	App.	Center Freq. (MHz)	I.L. (dB) max.*	Bandwidth (MHz)	Attenuation (dB)	Ripple (dB) max.	VSWR	Max. GDT (μ s)	Input/Output Impedance	Pkg. Style
ANALOG CORDLESS										
SAF254MA10T	RF	254.4	3.0	253.85 to 254.975	3.0 max.	1.5	N/S	N/S	50 ohm // 0 pF	F11
				209.85 to 212.975	57 min.					
				295.85 to 298.975	57 min.					
SAFP254MA10T-TC	RF	254.4	3.0	253.85 to 254.975	3.0 max.	1.5	N/S	N/S	50 ohm // 0 pF	SP511
				209.85 to 212.975	57 min.					
				295.85 to 298.975	57 min.					
SAF380MA10T	RF	380.8	3.0	380.200 to 381.325	3.0 max.	1.5	N/S	N/S	50 ohm // 0 pF	F11
				336.2 to 339.325	57 min.					
				422.2 to 425.325	57 min.					
SAFP380MA10T-TC	RF	380.8	3.0	380.200 to 381.325	3.0 max.	1.5	N/S	N/S	50 ohm // 0 pF	SP511
				336.2 to 339.325	57 min.					
				422.2 to 425.325	57 min.					
SAFU380MC10T-TC	RF	380.8	3.0	380.200 to 381.325	3.0 max.	1.5	N/S	N/S	50 ohm // 0 pF	SU68
				336.2 to 339.325	57 min.					
				422.2 to 425.325	57 min.					
LMR										
SAFC815.5MA70N-TC	RF	815.5	4.0	806 to 825	4.0 max.	2.0	2.5	N/S	50 ohm // 0 pF	SC44
				761 to 780	20 min.					
				851 to 870	20 min.					
SAFC860.5MA70N-TC	RF	860.5	4.0	851 to 870	4.0 max.	2.0	2.5	N/S	50 ohm // 0 pF	SC44
				806 to 825	20 min.					
				896 to 915	15 min.					
CT-2										
SAF841ME10T	RF	841.0	3.5	839 to 843	3.5 max.	1.5	N/S	N/S	50 ohm // 10nH	F11
				643 to 743	50 min.					
				939 to 1039	45 min.					
SAFC841ME70T-TC	RF	841.0	3.5	839 to 843	3.5 max.	1.5	N/S	N/S	50 ohm // 10nH	SC44
				643 to 743	50 min.					
				939 to 1039	45 min.					
SAF866ME10T	RF	866.0	3.5	864 to 868	3.5 max.	1.5	N/S	N/S	50 ohm // 10nH	F11
				668 to 768	50 min.					
				964 to 1064	45 min.					
SAFC866ME70T-TC	RF	866.0	3.5	864 to 868	3.5 max.	1.5	N/S	N/S	50 ohm // 10nH	SC44
				668 to 768	50 min.					
				964 to 1064	45 min.					
SAF948MC10T	RF	948.0	3.5	944 to 952	3.5 max.	1.5	N/S	N/S	50 ohm // 10nH	F11
				652 to 848	45 min.					
				1048 to 1350	45 min.					
SAFC948MC70T-TC	RF	948.0	3.5	944 to 952	3.5 max.	1.5	N/S	N/S	50 ohm // 10nH	SC44
				652 to 848	45 min.					
				1048 to 1350	45 min.					
SAF150.000MH40X	1st IF	150.000	4.5	$f_0 \pm 25$ kHz	3.0	2.0	N/S	N/S	700 ohm // -1.9pF	SF712
				149.4 to 149.9	25 min.					
				150.1 to 150.6	25 min.					
DECT										
SAF110.6MSA10T	1st IF	110.592	4.5	$f_0 \pm 576$ kHz	3.0	N/S	N/S	0.7	300 ohm 1.2 μ H	F11
				$f_0 \pm 1.15$ MHz	10 min.					
				$f_0 \pm 1.728$ MHz	30 min.					
SAFU110.6MSA40T-TC	1st IF	110.592	4.5	$f_0 \pm 576$ kHz	3.0	N/S	N/S	0.7	300 ohm 1.2 μ H	SU511
				$f_0 \pm 1.15$ MHz	10 min.					
				$f_0 \pm 1.728$ MHz	30 min.					

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PHS										
SAFC243.95MF10X-TC11	1st IF	243.95	5	$f_0 \pm 110\text{kHz}$	3	1.4	0.8	N/S	750 ohm	SC57
				$243.35 \pm 244.5\text{kHz}$	30					
				$242.75 \pm 245.1\text{kHz}$	40					
				222.95 ± 221.95	60					
PAGER										
SAF139MC10N	RF	138.65	4.5	135 to 142.3	4.5	2	N/S	2.5	180 ohm // 0pF	F11
				38.65 to 99.65	48					
				177.65 to 238.65	40					
SAF146MC10N	RF	146.15	4.5	142.3 to 150	4.5	2	N/S	N/S	180 ohm // 0pF	F11
				38.65 to 99.65	48					
				177.65 to 238.65	48					
SAF154C10N	RF	153.9	4.5	150 to 157.8	4.5	2	N/S	N/S	180 ohm // 0pF	F11
				53.9 to 115.9	48					
				191.9 to 253.9	48					
SAF162MC10N	RF	161.95	4.5	157.8 to 166.1	4.5	2	N/S	N/S	180 ohm // 0pF	F11
				61.95 to 123.95	48					
				199.95 to 261.95	48					
SAF171MC10N	RF	170.55	4.5	166.1 to 175	4.5	2	N/S	N/S	180 ohm // 0pF	F11
				70.55 to 132.55	48					
				208.55 to 270.55	48					
SAF280ME10N	RF	280.0	4.5	275 to 285	4.5 max.	2.0	N/S	N/s	230 ohm // -2pF	F11
				180 to 242.5	48 min.					
				280 to 417.5	40 min.					
SAFC280ME70N-TC	RF	280.0	4.5	275 to 285	4.5 max.	2.0	N/S	N/S	230 ohm // -2pF	SC44
				180 to 242.5	48 min.					
				317.5 to 380	40 min.					
SAF281ME10N	RF	281.0	4.5	276 to 286	4.5 max.	2.0	N/S	N/S	230 ohm // -2pF	F11
				181 to 243.5	48 min.					
				318.5 to 381	40 min.					
SAFC281ME70N-TC	RF	281.0	4.5	276 to 286	4.5 max.	2.0	N/S	N/S	230 ohm // -2pF	SC44
				181 to 243.5	48 min.					
				318.5 to 381	40 min.					
SAF284ME15N	RF	284.0	4.5	280 to 288	4.5 max.	2.0	N/S	N/S	230 ohm // -2pF	F11
				184 to 246.5	48 min.					
				321.5 to 384	40 min.					
SAFC284ME75N-TC	RF	284.0	4.5	280 to 288	4.5 max.	2.0	N/S	N/S	230 ohm // -2pF	SC44
				184 to 246.5	48 min.					
				321.5 to 384	40 min.					
SAF325ME10N	RF	325.3	4.0	322.0 to 328.6	4.0 max.	2.0	N/S	N/S	150 ohm // 0pF	F11
				225.3 to 285.8	50 min.					
				364.8 to 425.3	50 min.					
SAF930.5ME10T	RF	930.5	4.5	928.8 to 932.2	4.5 max.	2.0	N/S	N/S	50 ohm // 10nH	F11
				884.8 to 890.2	45 min.					
				906.8 to 911.2	30 min.					
SAFC930.5ME70T-TC	RF	930.5	4.5	928.8 to 932.2	4.5 max.	2.0	N/S	N/S	50 ohm // 10nH	SC44
				884.8 to 890.2	45 min.					
				906.8 to 911.2	30 min.					

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ISM CORDLESS										
SAF903MC10T	RF	903.0	3.5	902 to 904	3.5 max.	1.5	N/S	N/S	50 ohm // 10nH	F11
				858 to 862	45 min.					
SAF903MF10T	RF	903	4.5	902 to 904	4.5	1.5	N/S	N/S	50 ohm // 0pF	F11
				858 to 862	45					
				880 to 883	35					
				923 to 926	35					
				926 to 928	35					
				944 to 948	40					
SAFC903MC70T-TC	RF	903.0	3.5	902 to 904	3.5 max.	1.5	N/S	N/S	50 ohm // 10nH	SC44
				858 to 862	45 min.					
SAF915MA10N	RF	915.0	4.5	902 to 928	4.5 max.	1.5	2.5	N/S	50 ohm // 0pF	F11
				858 to 862	30 min.					
SAFC915MA70N-TC	RF	915.0	4.5	902 to 928	4.5 max.	2.0	N/S	N/S	50 ohm // 0pF	SC44
				790 to 860	30 min.					
				970 to 1040	20 min.					
SAF927MC10T	RF	927.0	3.5	926 to 928	3.5 max.	1.5	N/S	N/S	50 ohm // 10nH	F11
				882 to 886	45 min.					
SAF927MF10T	RF	927	4.5	926 to 928	4.5	1.5	N/S	N/S	50 ohm // 0pF	F11
				882 to 886	45					
				902 to 904	35					
				904 to 907	35					
				947 to 950	35					
				968 to 972	40					
SAFC927MC70T	RF	927.0	3.5	926 to 928	3.5 max.	1.5	N/S	N/S	50 ohm // 10nH	SC44
				882 to 886	45 min.					
SAFP434MC10T-TC	RF EUROPE	433.9	4.5	433.05 to 434.79	4.5 max.	1.5	N/S	N/S	50 ohm // 0pF	SP511
				411 to 414	40 min.					
				454 to 457	40 min.					

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