



SMARTUNER™ COMPARISON CHART

Specification	SG-230	SG-235	SG-237	SG-239	SG-211	MAC-200
Frequency Range	1.6 - 30MHz	1.8 - 30MHz	1.8 - 60MHz	1.8 - 30MHz	1.8 - 60MHz	1.8 - 60MHz
Input Power Range (PEP)	3 - 200W	3 - 500W	3 - 100W	1.5 - 200W	1 - 60W ¹	1.5 - 200W
Input Power Max. (CW)	80W	200W	40W	80W	20W	80W
Input Impedance Range	45 - 55 ohms	45 - 55 ohms	45 - 55 ohms	45 - 55 ohms	45 - 55 ohms	45 - 55 ohms
Typical VSWR	< 2:1	< 2:1	< 2:1	< 2:1	< 2:1	< 2:1
DC Input Requirement	+ 13.6 VDC	+ 13.6 VDC	+ 13.6 VDC	+ 13.8 VDC	Zero	+ 13.8 VDC
DC Operating Range	10 - 18 VDC	10 - 18 VDC	10 - 18 VDC	10 - 18.5 VDC	N/A	10 - 18.5 VDC
Input Current (Average)	.9 Amps	1.4 Amps	.3 Amps	.23 Amps	Zero	.23 Amps
Initial Tune Time	< 2 seconds	< 2 seconds	< 4 seconds	< 2 seconds	< 3 seconds	< 2 seconds
From Memory Tune Time	< 10 ms	< 10 ms	< 10 ms	< 10 ms	< 50 ms	< 10 ms
Memory Bins	170	170	170	170	256	170
Tuning Combinations	1/2 million	1/2 million	1/2 million	1/8 million	65,536	1/8 million
Antenna Length (> 3.3MHz)	8 feet	50 feet	8 feet	40 feet	8 feet	40 feet
Antenna Length (< 3.3MHz)	23 feet	300 feet	28 feet	100 feet	25 feet	100 feet
Elements Configuration	Pi & L	Pi & L	Pi & L	Pi & L	L	Pi & L
Input Capacitance (Min.)	100 pF	100 pF	50 pF	50 pF	N/A	50 pF
Input Capacitance (Max.)	6400 pF	6400 pF	6400 pF	3150 pF	N/A	3150 pF
Inductance (Min.)	0.25 µH	0.125 µH	0.125 µH	0.125 µH	.125 µH	.125 µH
Inductance (Max.)	64 µH	32 µH	32 µH	16 µH	32 µH	16 µH
Output Capacitance (Min.)	25 pF	12.5 pF	12.5 pF	50 pF	5 pF	50 pF
Output Capacitance (Max.)	800 pF	400 pF	200 pF	740 pF	1275 pF	740 pF
Installation	Any Position ²	Any Position ²	Any Position ²	Any Position ²	Any Position ²	Desktop ²
Operating Temperature	-35C to +70C	-35C to +70C	-35C to +70C	-35C to +70C	-30 C to + 60C	-35C to +70C
Environmental	Waterproof under 2 ft. for 30 min.	Waterproof under 2 ft. for 30 min.	Waterproof under 2 ft. for 30 min.	No protection	No protection	No protection
Dimensions (L x W x H Inches)	16 x 12 x 3	16 x 12 x 3	6 x 7 x 1.5	7.5 x 6 x 2	8.7 x 4.7 x 1.5	8.5 x 6.5 x 3
Weight (Lbs.)	8 lbs.	8 lbs.	< 2 lbs.	2 lbs.	1 lb.	5 lbs.
Case Construction	Sealed ABS Plastic	Sealed ABS Plastic	Sealed ABS Plastic	Aluminum ³	Aluminum ³	Extruded Metal ³
Control Cable *	9 ft. coax/control	9 ft. coax/control	9 ft. coax/control	not supplied	not supplied	not supplied
Other				Wire Terminals Manual Tune	SO-239 Input Internal Batteries LED Indicator ¹	5 Outputs ¹ 2 Meters ¹
MSRP	\$595.00	\$1,595.00	\$359.95	\$179.95	\$179.95	\$249.95

¹ See specifications on specific for details.

² Ideal installation position for all SGC couplers is as close to antenna feed point as possible.

³ Not recommended for outside installation - requires additional protection.

* All SGC couplers require only RF and DC power(not required for SG-211). SGC cables are required for additional features only.



STOP TUNING. START TALKING.

SGC SMARTUNERS deliver more flexibility and accuracy than any other HF antenna coupler on the market. They are independently intelligent, matching any HF transceiver and any antenna, with no user interface. Smartuners are available in power levels from 1.5 to 500 Watts and frequency ranges from 1.6 to 60 MHz. They provide efficient, accurate, all purpose tuning that is ideal for base, mobile, portable, marine or aviation. An SGC Smartuner ensures that you will get the most efficient, most accurate tuning solution possible.

USE WITH ANY TRANSCEIVER

The Smartuner requires no special interface and works with any transceiver. Simply supply power to the coupler, connect your antenna and ground system, hook up RF from the transceiver and transmit. The Smartuner will sense your operating frequency, measure the SWR and find the best possible match (typically less than 2:1). There are no buttons to push or knobs to adjust.

USE WITH ANY ANTENNA

Smartuners do not require an antenna to be resonant on your operating frequency. Any antenna that meets the minimum length requirement will allow for continuous coverage within the coupler's frequency range. This gives you complete freedom to operate across multiple bands with a single antenna.

INSTANT TUNING

When you change frequency and transmit, the Smartuner will find the best match for your conditions in less than 5 seconds. If the coupler has been on a frequency before, it has stored the solution in memory and will recall the match in less than 10 milliseconds. Since the memory is non-volatile, the Smartuner will remember your most used frequencies even when powered off - even for years.

TECHNICALLY SPEAKING

- Using a Pi network configuration allows a greater tuning range, meaning the coupler will tune from a higher VSWR mis-match.
- With typically 1/2 million possible tuning solutions, a Smartuner allows more precise tuning than other products, which typically have 65,000 or less.
- Non-volatile memory makes the tuner capable of storing a match, even when it is powered off - for the life of the coupler.
- The Smartuner does not require special conditions to tune; it will tune with voice, CW or SSB transmission at any power level within the specified range without any special command. Many competing products require you to drop below 20W to tune, interrupting your operation

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