

# Econo-Line Amplifiers

*Ideal for general purpose laboratory applications, communications and RF immunity testing*

## Features

- *Broad bandwidth*
- *Linear operation*
- *Low compression at rated power*
- *VSWR protection*
- *CE certified*
- *No band switching*
- *Bench top units with 19" rack mount option*

## Benefits

- *Wide instantaneous bandwidth for sweep applications, pulse and CW operation*
- *Delivers rated power with low distortion*
- *Low RF leakage reduces possible interference with equipment in close proximity*
- *Safe to operate with mismatched loads without risk of damage to the amplifier*

# MODELS

## 102LC, 505FC, 706FC

### 2 Watt to 6 Watt Broadband RF Power Amplifiers

Ideal for general purpose laboratory applications, communications and RF immunity testing.



#### FEATURES

- Broad bandwidth
- Linear operation
- Low compression at rated power
- VSWR protection
- CE certified
- No band switching
- Bench top units with 19" rack mount option

#### SYSTEM BENEFITS

- Wide instantaneous bandwidth for sweep applications, pulse and CW operation
- Delivers rated power with low distortion
- Low RF leakage reduces possible interference with equipment in close proximity
- Safe to operate with mismatched loads without risk of damage to the amplifier

MODEL	102LC	505FC	706FC
Power Output	2 Watts	5 Watts	6 Watts
Frequency Range	25 Hz-100 MHz	0.5-525 MHz	0.5-1000 MHz
Power Gain	35 dB	37 dB	36 dB
Gain Flatness	±1.5 dB	±1.5 dB	±2.0 dB
Gain Control	No	No	No
ALC	No	No	No
Class of Operation	'A' Linear	'A' Linear	'AB' Linear
Input/Output Impedance	50 Ohm nominal	50 Ohm nominal	50 Ohm nominal
Input for Full Output	1 mW	1 mW	1-5 mW
Spurious (maximum)	-70 dBc	-70 dBc	-60 dBc
Harmonics (worst case)	-20, -25 dBc (2nd, 3rd)	-20, -23 dBc (2nd, 3rd)	-11, -16 dBc (2nd, 3rd)
Protection	Temp	Temp	Temp
Operating Temperature	-10 to 40° C	-10 to 40° C	-10 to 40° C
Connectors	N Female	N Female	N Female
Cooling	Forced Air	Forced Air	Forced Air
Panel Meter	None	None	None
Indicators	Temp, AC ON	Temp, AC ON	Temp, AC ON
Primary Power Requirements	100-240 VAC, 50/60 Hz	90-255 VAC, 50/60 Hz	100-240 VAC, 50/60 Hz
Physical Dimensions H x W x D	5¼ x 11½ x 16 in	5¼ x 11½ x 16 in	5¼ x 11½ x 16 in
Weight	17 lb, 7.7 kg	17 lb, 7.7 kg	17 lb, 7.7 kg

# MODELS 110C, 110LC 210LC, 510FC, 710FC

## 10 Watt Broadband RF Power Amplifiers

Ideal for general purpose laboratory applications, communications and RF immunity testing.



### FEATURES

- Broad bandwidth
- Linear operation
- Low compression at rated power
- VSWR protection
- CE certified
- No band switching
- Bench top units with 19" rack mount option

### SYSTEM BENEFITS

- Wide instantaneous bandwidth for sweep applications, pulse and CW operation
- Delivers rated power with low distortion
- Low RF leakage reduces possible interference with equipment in close proximity
- Safe to operate with mismatched loads without risk of damage to the amplifier

MODEL	110C	110LC	210LC	510FC	710FC
Power Output	10 Watts	10 Watts	10 Watts	10 Watts	10 Watts
Frequency Range	0.2-60 MHz	0.01-100 MHz	0.01-230 MHz	0.5-525 MHz	1-1000 MHz
Power Gain	40 dB	40 dB	40 dB	40 dB	40 dB
Gain Flatness	±1.5 dB	±1.5 dB	±1.5 dB	±2.0 dB	±2.5 dB
Gain Control	No	No	No	No	10 dB
ALC	No	No	No	No	No
Class of Operation	'A' Linear	'A' Linear	'A' Linear	'A' Linear	'A' Linear
Input/Output Impedance	50 Ohm nominal	50 Ohm nominal	50 Ohm nominal	50 Ohm nominal	50 Ohm nominal
Input for Full Output	1 mW	1 mW	1 mW	1 mW	1-2 mW
Spurious (maximum)	-70 dBc	-70 dBc	-70 dBc	-70 dBc	-65 dBc
Harmonics (worst case)	-15 dBc	-25 dBc	-20 dBc	-18 dBc	-18 dBc
Protection	Temp	Temp	Temp	Temp	Temp
Operating Temperature	-10 to 40° C	-10 to 40° C	-10 to 40° C	-10 to 40° C	-10 to 40° C
Connectors	N Female	N Female	N Female	N Female	N Female
Cooling	Forced Air	Forced Air	Forced Air	Forced Air	Forced Air
Panel Meter	None	None	None	None	None
Indicators	Temp, AC ON	Temp, AC ON	Temp, AC ON	Temp, AC ON	Temp, AC ON
Primary Power Requirements	100-240 VAC, 50/60 Hz	100-240 VAC, 50/60 Hz	100-240 VAC, 50/60 Hz	90-225 VAC 50/60 Hz	90-250 VAC 50/60 Hz
Physical Dimensions H x W x D	5¼ x 11½ x 16 in	5¼ x 11½ x 16 in	5¼ x 11½ x 16 in	5¼ x 11½ x 16 in	5¼ x 11½ x 16 in
Weight	17 lb, 7.7 kg	17 lb, 7.7 kg	17 lb, 7.7 kg	17 lb, 7.7 kg	17 lb, 7.7 kg

# MODELS 520FC, 125C, 125LC, 225LC

## 20 Watt to 25 Watt Broadband RF Power Amplifiers

Ideal for general purpose laboratory applications, communications and RF immunity testing.



### FEATURES

- Broad bandwidth
- Linear operation
- Low compression at rated power
- VSWR protection
- CE certified
- No band switching
- Bench top units with 19" rack mount option

### SYSTEM BENEFITS

- Wide instantaneous bandwidth for sweep applications, pulse and CW operation
- Delivers rated power with low distortion
- Low RF leakage reduces possible interference with equipment in close proximity
- Safe to operate with mismatched loads without risk of damage to the amplifier

MODEL	520FC	125C	125LC	225LC
Power Output	20 Watts	25 Watts	25 Watts	25 Watts
Frequency Range	1-525 MHz	0.5-50 MHz	0.005-100 MHz	0.01-230 MHz
Power Gain	43 dB	45 dB	47 dB	43 dB
Gain Flatness	±2.0 dB	±1.5 dB	±2.0 dB	±1.5 dB
Gain Control	No	No	No	No
ALC	No	No	No	No
Class of Operation	'AB' Linear	'A' Linear	'A' Linear	'A' Linear
Input/Output Impedance	50 Ohm nominal	50 Ohm nominal	50 Ohm nominal	50 Ohm nominal
Input for Full Output	1 mW	1 mW	0.5 mW	1 mW
Spurious (maximum)	-70 dBc	-70 dBc	-70 dBc	-70 dBc
Harmonics (worst case)	-15 dBc	-25 dBc	-16 dBc	-20 dBc
Protection	Temp	Temp	Temp	Temp
Operating Temperature	-10 to 40° C	-10 to 40° C	-10 to 40° C	-10 to 40° C
Connectors	N Female	N Female	BNC Female	N Female
Cooling	Forced Air	Forced Air	Forced Air	Forced Air
Panel Meter	None	None	25 W, 35 VRMS	None
Indicators	Temp, AC ON	Temp, AC ON	Temp, AC ON	Temp, AC ON
Primary Power Requirements	90-250 VAC, 50/60 Hz	100-240 VAC, 50/60 Hz	100-240 VAC, 50/60 Hz	100-240 VAC, 50/60 Hz
Physical Dimensions H x W x D	5¼ x 11½ x 16 in	5¼ x 11½ x 16 in	19 x 15 x 5¼ in	5¼ x 11½ x 16 in
Weight	17 lb, 7.7 kg	17 lb, 7.7 kg	35 lb, 15.5 kg	17 lb, 7.7 kg

# MODELS 320FC, 250FC, 250LC, 550FC

## 25 Watt to 50 Watt Broadband RF Power Amplifiers

Ideal for general purpose laboratory applications, communications and RF immunity testing.



### FEATURES

- Broad bandwidth
- Linear operation
- Low compression at rated power
- VSWR protection
- CE certified
- No band switching
- Bench top units with 19" rack mount option

### SYSTEM BENEFITS

- Wide instantaneous bandwidth for sweep applications, pulse and CW operation
- Delivers rated power with low distortion
- Low RF leakage reduces possible interference with equipment in close proximity
- Safe to operate with mismatched loads without risk of damage to the amplifier

MODEL	320FC	250FC	250LC	550FC
Power Output	25 Watts	50 Watts	50 Watts	50 Watts
Frequency Range	1-300 MHz	1-200 MHz	0.01-220 MHz	200-512 MHz
Power Gain	46 dB	47 dB	47 dB	47 dB
Gain Flatness	±1.5 dB	±1.5 dB	±2.0 dB	±1.5 dB
Gain Control	No	No	No	No
ALC	No	No	No	No
Class of Operation	'A' Linear	'AB' Linear	'A' Linear	'AB' Linear
Input/Output Impedance	50 Ohm nominal	50 Ohm nominal	50 Ohm nominal	50 Ohm nominal
Input for Full Output	1 mW	1-2 mW	1 mW	1 mW
Spurious (maximum)	-70 dBc	-65 dBc	-65 dBc	-70 dBc
Harmonics (worst case)	-15 dBc	-13 dBc	-20 dBc	-18 dBc
Protection	Temp	Temp	Temp	Temp
Operating Temperature	-10 to 40° C	-10 to 40° C	-10 to 40° C	-10 to 40° C
Connectors	N Female	N Female	N Female	N Female
Cooling	Forced Air	Forced Air	Forced Air	Forced Air
Panel Meter	None	None	None	None
Indicators	Temp, AC ON	Temp, AC ON	Temp, AC ON	Temp, AC ON
Primary Power Requirements	90-250 VAC, 50/60 Hz	90-250 VAC, 50/60 Hz	95-250 VAC, 50/60 Hz	90-255 VAC, 50/60 Hz
Physical Dimensions H x W x D	5¼ x 11½ x 16 in	5¼ x 11½ x 16 in	7 x 11½ x 16 in	5¼ x 11½ x 16 in
Weight	17 lb, 7.7 kg	18 lb, 8.2 kg	25 lb, 11.4 kg	17 lb, 7.7 kg

# MODELS 500FC 155LCRH, 121CR

## 50 Watt to 180 Watt Broadband RF Power Amplifiers

Ideal for general purpose laboratory applications, communications and RF immunity testing.



### FEATURES

- Broad bandwidth
- Linear operation
- Low compression at rated power
- VSWR protection
- CE certified
- No band switching
- Bench top units with 19" rack mount option

### SYSTEM BENEFITS

- Wide instantaneous bandwidth for sweep applications, pulse and CW operation
- Delivers rated power with low distortion
- Low RF leakage reduces possible interference with equipment in close proximity
- Safe to operate with mismatched loads without risk of damage to the amplifier

MODEL	500FC	155LCRH	121CR
Power Output	50 Watts	100 Watts	180 Watts
Frequency Range	1-500 MHz	0.1-10 MHz	1-32 MHz
Power Gain	47 dB	50 dB	50 dB
Gain Flatness	±2.0 dB	±1.0 dB	±2.0 dB
Gain Control	15 dB	No	No
ALC	No	No	No
Class of Operation	'A' Linear	'A' Linear	'AB' Linear
Input/Output Impedance	50 Ohm nominal	50 Ohm nominal	50 Ohm nominal
Input for Full Output	1-2 mW	1-2 mW	2-3 mW
Spurious (maximum)	-65 dBc	-70 dBc	-65 dBc
Harmonics (worst case)	-15 dBc	-25 dBc	-13 dBc
Protection	Temp	Temp, VSWR	Temp, VSWR
Operating Temperature	-10 to 40° C	-10 to 40° C	-10 to 40° C
Connectors	N Female	N Female	N Female
Cooling	Forced Air	Forced Air	Forced Air
Panel Meter	None	150 W, 75 VRMS	None
Indicators	Temp, AC ON, VSWR	Temp, AC ON, VSWR	Temp, AC ON, VSWR
Primary Power Requirements	90-250 VAC, 50/60 Hz	100-240 VAC, 50/60 Hz	115-230 VAC, 50/60 Hz
Physical Dimensions H x W x D	19 x 18 x 5¼ in	5¼ x 19 x 19¼ in	5¼ x 11½ x 16 in
Weight	32 lb, 14.6 kg	37 lb, 16.8 kg	18 lb, 8.2 kg