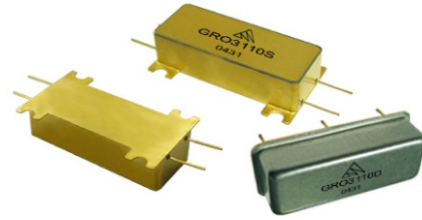


### Features

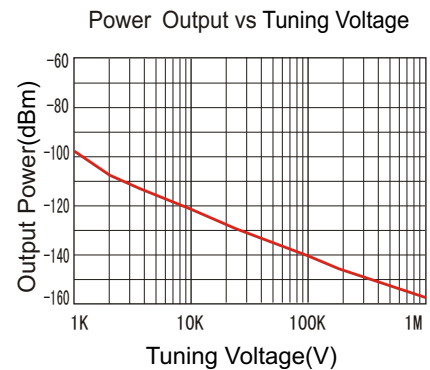
- Coaxial ceramic resonator
- Ultra low phase noise high stability
- Built-in buffer amplifier low frequency pulling
- Thin film hybrid construction small size
- Hermetic package (DIP-22C ; SP-22)
- Operating temperature range:  $-55^{\circ}\text{C} \sim +85^{\circ}\text{C}$



### Specifications ( $T_A=25^{\circ}\text{C}, V_{CC}=+12\text{V}$ )

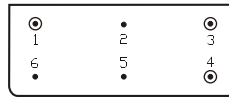
Parameter	Symbol	Unit	Guaranteed	Typical	Test Condition
Frequency Range	$f_L \sim f_H$	MHz	—	3110	—
Power Output	$P_o$	dBm	$\geq 10$	12	—
Power Output Variation	$\Delta P_o$	dB	—	$\pm 1.0$	$T_A: -55 \sim +85^{\circ}\text{C}$
Pushing	$K_{VC}$	MHz/V	—	0.1	$V_{CC}=11 \sim 13\text{V}$
Spurious	$R_{fs}$	dBc	$\leq -75$	—	—
Harmonics	$R_{fn}$	dBc	—	-25	—
SSB Phase Noise	$S_{\phi}$	dBc/Hz	—	-121	$F_m=10\text{KHz}$
Frequency Drift	$\Delta f$	MHz	—	4	$T_A: -55 \sim +85^{\circ}\text{C}$
Current	$I_{CC}$	mA	—	70	—

### Typical Performance

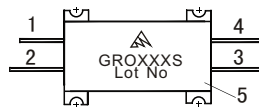


### Absolute Ratings

Maximum DC Voltage : +15V  
 Maximum Storage Temp: +125°C



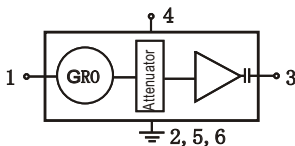
DIP-22C



SP-22

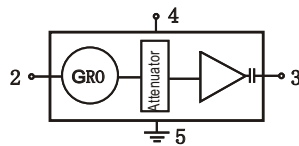
### Application Notes

1. See assembly section for mounting information
2. ESD observe handling precautions
3. DIP-22C is for GRO3110D; SP-22 is for GRO3110S



DIP-22C

1.N/C      2,5,6.Case GND  
 3.Po      4.Vcc



SP-22

1,2.N/C    3.Po  
 4.Vcc      5.Case GND