

Voltage Variable Attenuators

IDT's Voltage Variable Attenuator (VVA) family offers analog control for applications that require continuous, smooth and precise attenuation control. The F22xx family of devices covers a broad frequency range as wide as 1 to 6000 MHz, has nearly half the insertion loss of competitive solutions, features high IP3 performance, and is linear in dB attenuation across the voltage control range.

Using silicon-based RF semiconductor technology, IDT attenuators offer a robust alternative to older GaAs-based semiconductor technology. Silicon technology offers the advantages of more robust electrostatic discharge (ESD) protections, better moisture sensitivity levels (MSL), improved thermal performance, lower current consumption, and the proven reliability of silicon technology.



FAMILY FEATURES AND BENEFITS

- Supports 50Ω and 75Ω applications
- Wide operating frequency range from 1 to 6000 MHz
- Low insertion loss of 1.1dB @ 300MHz
- High linearity maintained over frequency range:
 - Typical / Min IIP3 : 65dBm / 47dBm
 - Typical / Min IIP2 : 95dBm / 87dBm
- –40 to 105°C operating temperature range offers excellent temperature and thermal characteristics
- Linear-in-dB attenuation characteristics
- Positive or negative slope attenuation control feature
- Bi-directional RF ports
- High reliability silicon technology

Part Number	Description	Z ₀ , Ω	Insertion Loss (dB)	Input IP3 (dBm)	Frequency Range (MHz)	Package
F2250	Wideband Voltage Variable RF Attenuator	50	-1.4	65	50 to 6000	3 x 3mm 16-VFQFPN
F2255	Wideband Voltage Variable RF Attenuator	50	-1.1	60	1 to 3000	3 x 3mm 16-VFQFPN
F2258	Wideband Voltage Variable RF Attenuator	50	-1.4	65	50 to 6000	3 x 3mm 16-VFQFPN
F2270	Voltage Variable RF Attenuator	75	-1.1	60	5 to 3000	3 x 3mm 16-VFQFPN

To request samples, download documentation or learn more visit: idt.com/vva