

## DETECTOR LOG VIDEO AMPLIFIERS

### **FEATURES:**

- FULL MIL-SPEC PRODUCTS
- DC COUPLED & CW IMMUNE VARIANTS
- WIDE FREQUENCY RANGE
- HIGH DYNAMIC RANGE
- DESIGNS CAN BE CUSTOMER SPECIFIED FOR OPTIMUM SYSTEM PERFORMANCE



### **DESCRIPTION:**

Detector log Video Amplifiers (DLVA's) convert an RF signal into an output voltage proportional to the input power level. In order to accommodate a wide range of input powers the output is logarithmic, this gives a linear relationship between output voltage and RF power in dB's.

Filtronic's DC Coupled DLVA's work over a wide range of frequencies (0.5 to 6GHz or 2 to 18GHz). Their design allows signal processing in less than 50ns.

Filtronic's CW Immune DLVA's offer many of the advantages of AC coupled DLVA's but without the drawbacks. They are capable of measuring pulses whilst in the presence of CW, but unlike AC coupled DLVA's they will work with up to 99% duty cycles in most environments. Utilising a proprietary detector design they are also able to offer excellent device to device matching & process pulse widths of less than 50ns.

Filtronic's extended range DLVA's offer many of the advantages of SDLVA's at a lower cost. They possess up to 70dB dynamic range, 1dB linearity, 2dB flatness, 20ns rise time and 300ns recovery time with a  $T_{ss}$  of down to -70dBm



## PRODUCT TECHNICAL SPECIFICATIONS

### **DLVA SELECTION GUIDE**

Type Code	DC Coupled / CW Immune	Log Range (dBm) note1	Log Slope (mV/dB)	Tss (dBm)	Frequency (GHz) note 2	Frequency Variants (GHz) note 3	notes
RV002	CW	-40 to +5	80±5	-41	0.5 to 18	0.5-2, 1-18, 2-18, 6-18	
RV017	CW	-40 to +5	50±5	-43	0.5 to 18	2-18	
RV021	CW	-40 to +9	50/80±5	-43	0.5 to 18	0.5-18	
RV026	DC	-40 to +5	50±5	-43	2 to 18	2-18	4
RV038	DC	-40 to +5	50/100±5	-41	0.5 to 18	2-6, 6-18	
RV044	DC	-40 to +15	50±1	-43	6 to 18	6-12, 12-18	4
RV049	CW	-40 to +15	80±5	-43	0.5 to 18	2-18	
RV050	CW	-40 to 0	50±5	-45	18 to 40	18-40	5
RV057	CW	-60 to +10	75±5	-67	1 to 18	8-18	
RV060	DC	-65 to +5	50±5	-70	1 to 18	1.2-18, 2-18, 8-18	
RV062	DC	-60 to +10	50±5	-63	2 to 8	2-18	
RV064	DC	-65 to +5	50±2	-71	2 to 18	8-18	
RV065	CW	-40 to +10	-60±6	-43	0.5 to 18		

#### Notes

1	The log range is that for which the accuracy is specified. There may be useable performance outside of these limits. Consult factory for details
2	The frequency range given is that for which the design is capable. There may not be a device in manufacture that operates over this range.
3	These are actual frequency ranges produced to date.
4	DC coupled with base line restoration.
5	Includes video BITE oscillator