

Programmable Stimulus System



HFS Series.

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**HFS9003 * HFS9009 * HFS9DG1 *
HFS9DG2**

This product is discontinued.
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Check [product support](#) status.

Characteristics

Level Resolution - 0.01 V.

HIGH Level Accuracy - $\pm 2\%$ of level ± 50 mV.

LOW Level Accuracy - $\pm 2\%$ of HIGH level $\pm 2\%$ of amplitude ± 50 mV.

Output Aberrations (200 ps after 50% pt.) -
Overshoot: +15% +20 mV. Undershoot: -10% -
20 mV.

Time Base Performance

Frequency Range - 50 kHz to 630 MHz.

Frequency Resolution - $\leq 0.1\%$ of programmed value.

Frequency Accuracy - $\pm 1\%$ of programmed value.

RMS Jitter - 15 ps $\pm 0.05\%$ of interval.

PHASE LOCK IN Frequency Range - 6 MHz to 630 MHz.

PHASE LOCK IN Amplitude Range - 0.8 V to 1.0 V_{p-p}.

Output Frequency Range - Any 2^n multiple or submultiple of PHASE LOCK IN frequency. Must remain inside the allowed frequency range for installed cards.

FRAME SYNC IN - Initiates a burst when using PHASE LOCK IN external frequency reference.

Output Edge Placement Performance

Channel Deskew Range - Minus 60 ns to 2.0 μ s.

Channel Deskew Resolution - 1 ps.

DELAY Adjust Range - 0 to 20 μ s.

DELAY Adjust Resolution - 1 ps.

DELAY Accuracy - 1% \pm 50 ps.

WIDTH Adjust Range - 0 to 65,536 x one period.

WIDTH Adjust Resolution - 1 ps.

WIDTH Accuracy - HFS9DG1: 1% of width \pm 50 ps; HFS9DG2: 1% of width +50 ps -250 ps.

Output Performance

	HFS9DG1	HFS9DG2
Outputs	4 differential	4 single-ended
Maximum HIGH level	+5.00 V	+5.50 V
Minimum LOW level	-2.50 V	-2.00 V
Max p-p amplitude	3.00 V	5.50 V
Min p-p amplitude	0.01 V (10 mV)	0.01 V (10 mV)
Output transition time (20% to 80%)	< 250 p ($\leq 1 V_{p-p}$)	variable (800 ps to 6 ns)

Trigger Input Performance

Input Resistance - 50 Ohm.

Input Voltage Range - \pm 5 V maximum.

Programmable Threshold Range - 4.70 V to +4.70 V.

Programmable Threshold Resolution - 100 mV.

Programmable Threshold Accuracy - \pm 100 mV \pm 5% of level.

Minimum Input Pulse Width - 1 ns.

Input Rise/Fall Time Requirement - \leq 10 ns.

Sensitivity - \leq 500 mV.

Power Requirements

Line Voltage Ranges - 90 V AC to 130 V AC RMS, and 180 V AC to 250 V AC RMS; range switched automatically for HFS9003 (factory configured for HFS9009).

Line Frequency - 48 Hz to 63 Hz.

Power Consumption

	HFS9003	HFS9009
Maximum	540 W	900 W
Typical	400 W	750 W

Environmental

Temperature - Operating: 0° to +50°C (HFS9003); 0° to +40°C (HFS9009). Nonoperating: -40° to +75° C.

Humidity - 10°C to +30°C up to 95% relative humidity. 30°C to 40°C up to 75% relative humidity.

Altitude, Shock nonoperating, Bench Handling - C - Meets MIL-T-28800 Type III, Class 5.

Physical Characteristics

HFS9003	Cabinet		Rackmount	
Dimensions	mm	in.	mm	in.
Width	414	16.30	483	19.00
Height	178	7.00	178	7.00
Depth	629	24.75	629	24.75
Weight*¹	kg	lbs.	kg	lbs.
Net	20.5	45	23.2	51
Shipping	27.3	60	30.0	66

*¹ Maximum configuration.

HFS9009	Cabinet	
Dimensions	mm	in.
Width	426	16.75
Height	356	14.00
Depth	610	24.00
Weight	kg	lbs.
Net	36.8	81
Shipping	45.5	100

HFS9DG1, HFS9DG2	Cabinet	
Dimensions	mm	in.
Width	51	2.0
Height	267	10.5

Depth	356	14.0
Weight	kg	lbs.
Shipping	1.36	3