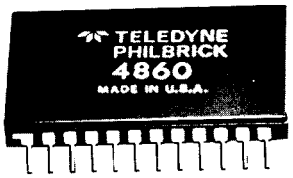
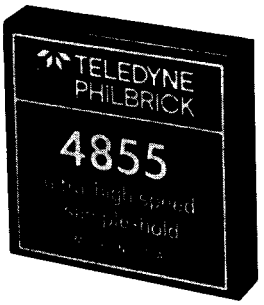
Sample-Hold Amplifiers and Deglitchers



4860

170nsec Acquisition Time to ±0.01%
60nsec Settling Time



4855

250nsec Acquisition Time to ±0.01%
$10^{11}\Omega$ Input Impedance

4857

800nsec Acquisition Time to ±0.01%
±0.5μV/μsec Maximum Droop

Sample-Hold Amplifier Selection Guide

Part Number	Acquisition Time (10V Step to ±0.01%FS)	Sample-Hold Settling Time (to ±0.01%FS)	Maximum Droop Rate (μV/μsec)	Aperture Jitter (1) (nsec)	Maximum Gain Error (2) (%)	Typical Input Impedance	Specified Temperature Range (°C)	Package	Page
4853	1μsec Max	300nsec Max	±1	±1 Max	±0.05	(3)	0 to +70	A	4-3
4854	12μsec Typ	1.5μsec Typ	±0.05	±4 Max	±0.01	$10^{9}\Omega$	0 to +70	A	4-5
4855	300nsec Max	100nsec Max	±25	±0.2 Typ	±0.02	$10^{11}\Omega$ // 2pF	0 to +70	A	4-7
4856	5μsec Typ (4)	(4)	(4)	±7 Typ	(2)	$10^{7}\Omega$	0 to +75	B	4-9
4857	1μsec Max	500nsec Max	±1	±0.1 Typ	±0.02	5kΩ (5)	0 to +70	C	4-11
4857-83 (6)	1μsec Max	500nsec Max	±0.5	±0.1 Typ	±0.02	5kΩ (5)	−55 to +125	C	4-11
4860	200nsec Max	100nsec Max	±5	±0.05 Typ	±0.1	1kΩ	0 to +70	D	4-19
4860-83 (6)	200nsec Max	100nsec Max	±5	±0.05 Typ	±0.1	1kΩ	−55 to +125	D	4-19

Deglitcher

4902	1μsec Max	200nsec Max	±25	N/A	±0.05	N/A	0 to +70	C	4-25
4902-83 (6)	1μsec Max	200nsec Max	±25	N/A	±0.05	N/A	−55 to +125	C	4-25

Notes: 1. Defined as the sample to sample variation in aperture delay time.
2. All units have a gain of −1 except the 4854 (+1) and 4856. The gain of the 4856 is determined by a choice of external resistors. The 4857's user-optional input buffer can be configured for different gains with external resistors.
3. 2kΩ // (20pF in series with 2kΩ).
4. Determined by size of external hold capacitor.
5. Typical input impedance of user-optional input buffer is $10^{12}\Omega$ // 3pF.
6. Fully screened to the high reliability requirements of MIL-STD-883, Method 5008.

Packages: A. Module, 2″ × 2″ × 0.4″
B. 14 pin plastic dual-in-line, 0.7″ × 0.3″ × 0.14″
C. 24 pin metal dual-in-line, 1.39″ × 0.8″ × 0.2″
D. 24 pin ceramic dual-in-line, 1.34″ × 0.83″ × 0.23″

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