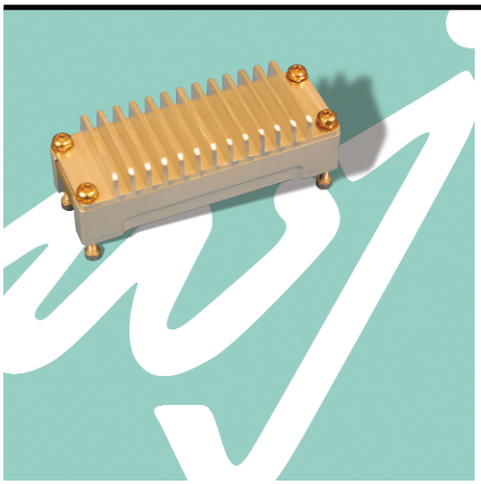
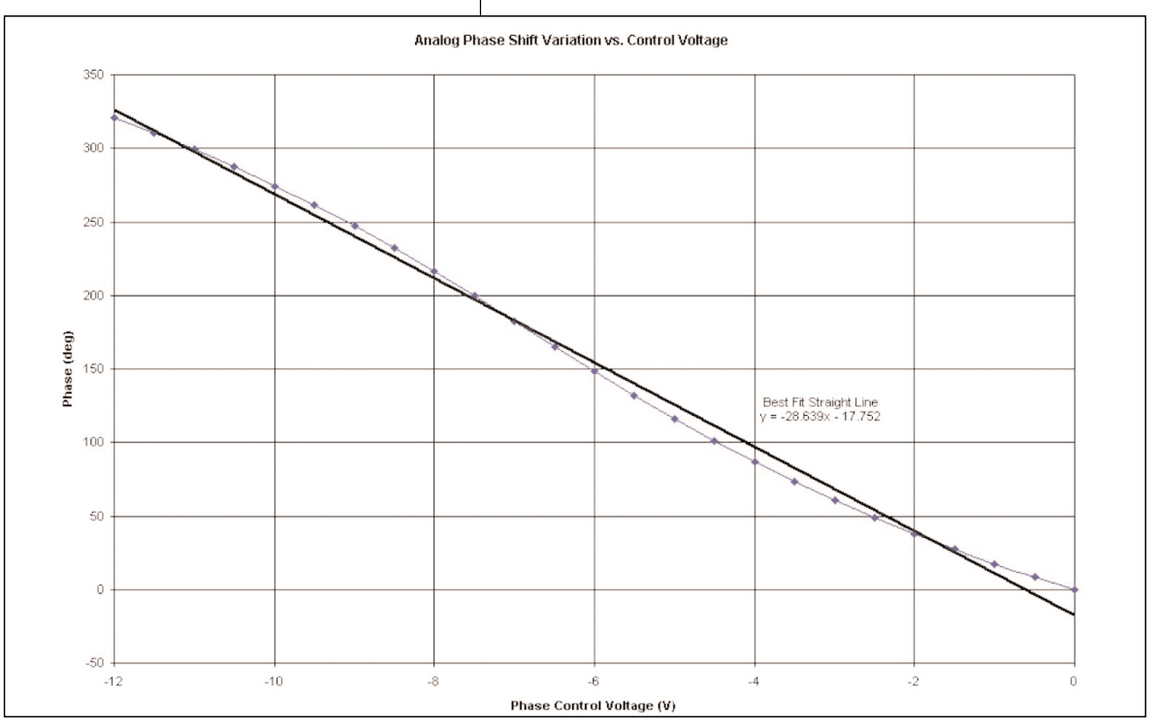
CA1249 Integrated Half-Rate Clock Driver and Phase Shifter

WJ's 10Gbps clock amplifier
An RF evolution for OC-192



- **10.7 to 12.5 Gbps Clock Rates**
  Tunable 200MHz about any Fo
- **360˚Analog Phase Shift Range**
- **16 Vp-p Output Voltage**
- **Fully Qualified**

The CA1249 is another addition in WJ's series of hybrid-based products optimized for OC-192 networks. The CA1249 is a full-function clock driver for generating transmit pulses in optical RZ systems operating with clock rates between 10.7 and 12.5 GHz (up to 12.5 Gbps FEC data rates). The CA1249 amplifies clock signals while providing analog phase shift control. Excellent phase shift accuracy, low phase variation over temperature and stable output level performance work in conjunction with the integral power detector to ensure precise control of transmitted pulses. The CA1249's efficiency enables high output voltage levels with low power consumption. Custom performance and functionality are available



THE COMMUNICATIONS EDGE™
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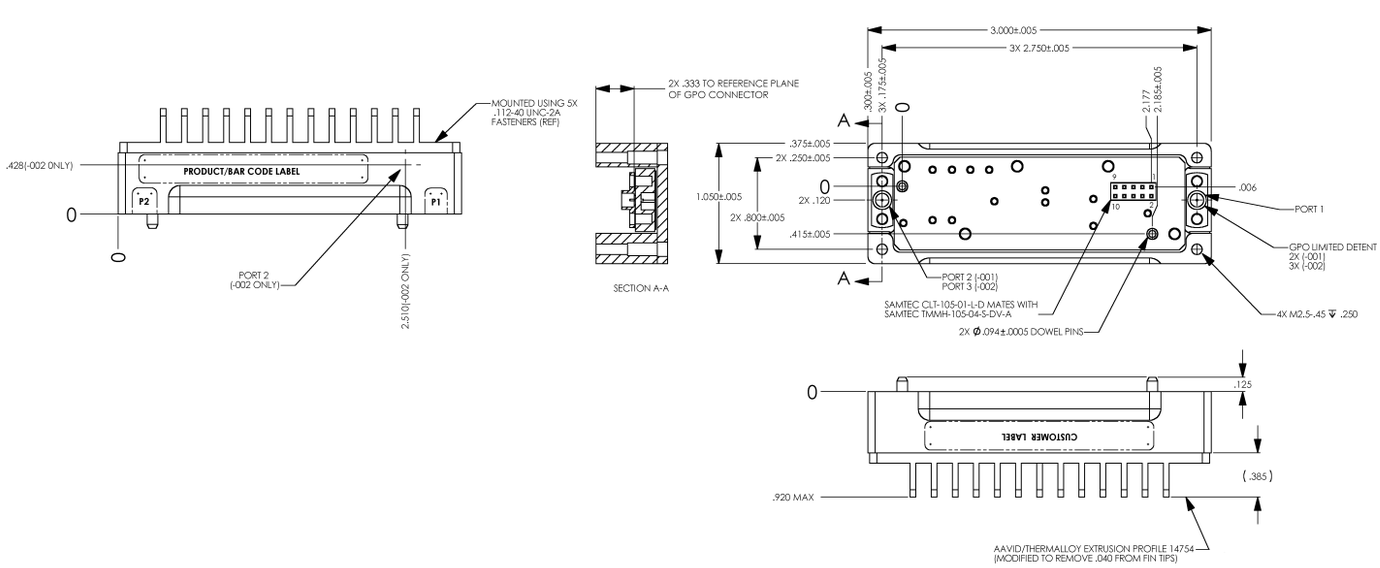
OC-192 HALF-RATE OPTICAL CLOCK DRIVER SPECIFICATIONS

Parameter	Conditions	Min	Typ	Max	Units
Input Frequency Range	Any single frequency (fo) within range	10.7		12.5	GHz
1/2 Rate Clock Output Frequency Range	fo/2	5.35		6.25	GHz
Input Frequency Span	Absolute input frequency range about any single fo, including fo			0.2	GHz
Input Return Loss		10	14		dB
Output Return Loss		10	14		dB
Gain Flatness (p-p)	Across specified 0.2 GHz span			3	dB
Input Signal Level		350		1130	mV p-p
Output Signal Level	Voltage-controlled				
(Variable)	0 to +10 V	5		16	V p-p
Output Power Control Voltage Modulation Bandwidth				1	MHz
Output Power Variation over Temperature			±1	±2	dB
Analog Phase Shift Range	Voltage-controlled	260	320	360	deg
	0 to –12 V				
Analog Phase Shift Setting Accuracy	degrees deviation from best fit straight line	-25		25	
Output Power Change vs. Phase Change		0	1.5	2.5	dB
Phase Shift Over Temperature	phase shift per degree of temperature		0.667		deg / °C
Phase Jitter			1	2	ps
2nd and 3rd Harmonic		-40	-60		dBc
Spurious Output		-50	-60		dBc
Integral Output Voltage Detector		0.25		4.5	V
Control Ports Input Impedance		3			k Ohms
Detector Output Stability over	at max Pout		0.2	1	dB
Temperature	at min Pout		0.4	2	dB
Power Supplies	+8 V		850	1000	mA
	-15 V		5	50	mA
Operating Temperature		-5		+70	°C
Storage Temperature		-40		+85	°C



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