

Table 1: Electrical Specifications

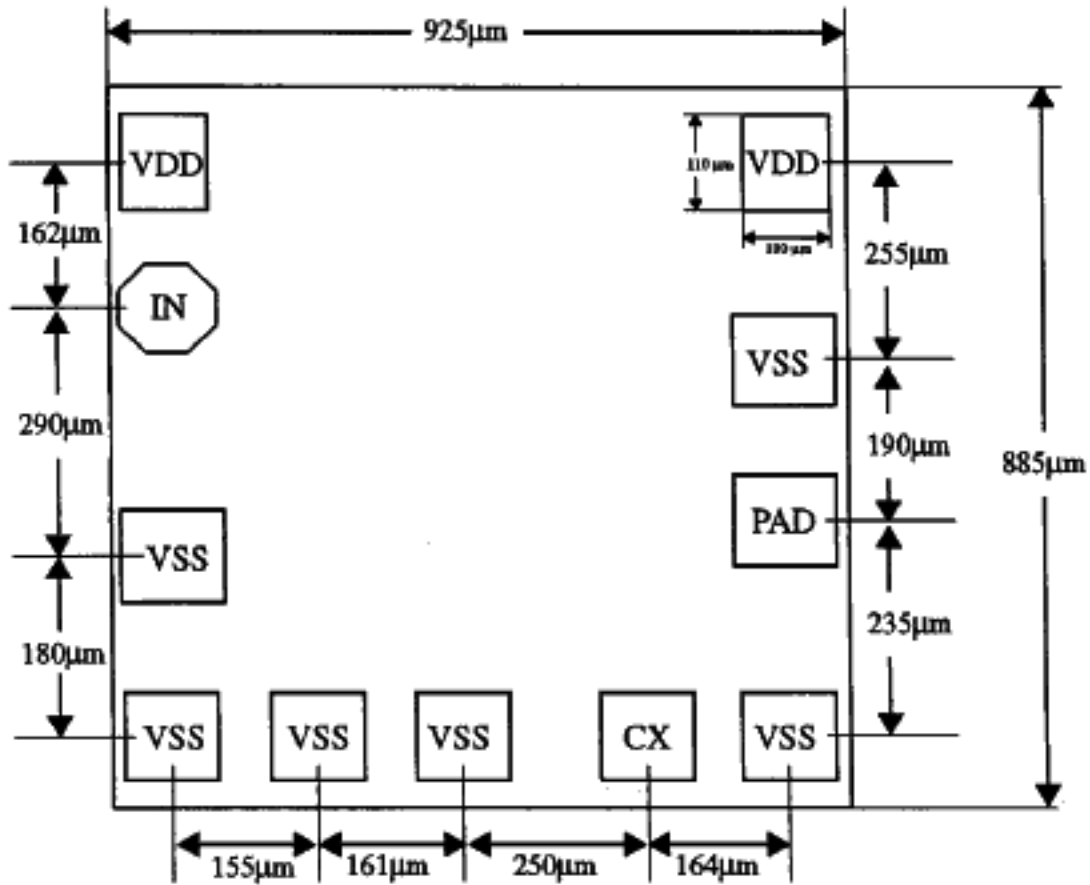
Symbol	Description	Min	Typ	Max	Units	Conditions
Z_{dc}	DC Transimpedance	10			K Ω	$R_L = \infty$
Z_{ac}	AC Transimpedance	5			K Ω	$R_L = 50\Omega$, $f = 150\text{MHz}$, $I_{in} = 4\mu\text{A}$
f_{3db}	Modulation Bandwidth	130			MHz	$R_L = 50\Omega$, $C_{in} = 0.8\text{pF}$, $I_{in} = 4\mu\text{A}$
I_{NOISE}	Input Noise Current Density		2		$\frac{\text{pA}}{\sqrt{\text{Hz}}}$	
I_{max}	Max. Input Current			2	mA	
I_{agc}	AGC Threshold Current		20		μA	
T_{agc}	AGC Time Constant		33		μsec	$C_{agc} = 470\text{pF}$
V_{OFF}	Input Offset Voltage		1.9		V	$T_J = 25^\circ\text{C}$
$\frac{dV_{OFF}}{dTemp}$	Input Voltage Drift			-3	$\frac{\text{mV}}{^\circ\text{C}}$	$I_{IN} = 4\mu\text{A}$
V_{out}	Output Voltage		1.5		V	
R_{out}	Output Resistance	35	50	65	Ω	
I_{cc}	Supply Current		35	45	mA	

Note: All specifications guaranteed with $V_{DD} = +5.0\text{V} \pm 10\%$, $C_{IN} = 0.8\text{pf}$, $T_{JUNCTION} = -45^\circ\text{C}$ to 100°C unless otherwise noted.

Table 2: Absolute Maximum Rating

Symbol	Parameter	Maximum
V_{DD}	Power Supply	7 Volts
T_{STG}	Storage Temperature	-50°C to 125°C
I_{IN}	Input Current	10mA

Figure 1: VSC7902 Bonding Pad Diagram



SDH/SONET Transimpedance Amplifier

Part Numbering Scheme

VSC7902B

Package Style

X = Die Form

Notice

This document contains information on products that are in the preproduction phase of development. The information contained in this document is based on test results and initial product characterization. Characteristic data and other specifications are subject to change without notice. Therefore, the reader is cautioned to confirm that this datasheet is current prior to placing orders.

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