

# Tablet

---

## Table of Contents

Audio Subsystem, Audio Codec.....	3
Display, Ambient Light Sensors.....	4
Display, Display Interface.....	5
Display, HDMI Interface.....	6
Display, Touch Screen.....	7
Display, Touch Screen control.....	8
Power Management, Charger.....	9
Power Management, CPU / GPU Core.....	10
Power Management, System.....	11
System DSP, Load Switches.....	12

# Tablet

---

## Power MOSFETS

- Controller ICs
  - LDOs
  - IrDA and IR Receiver Modules
  - Load and Smart Switches
  - Switching Diodes and Rectifiers
  - Transient/Overvoltage Protection Devices
  - ESD Protection Devices
  - Capacitors
  - Resistors
  - NTC Thermistors
  - Inductors/EMI Filters
  - Secondary Protection Fuses
- 

## Application Overview

A tablet PC is a tablet-sized computer that also has the key features of a full-sized personal computer. Tablets are much thinner, lighter, and more power-efficient than conventional notebook computers. They are equipped with a rotatable touchscreen as an additional input device, and run a standard PC operating system like iOS, Windows, or Android. The user interface generally does not include a conventional keyboard and uses the display as a multifunction input and output interface. The hardware architecture of tablet PCs is similar to that of notebook computers, except that it handles much less power and generally has height and size restrictions. High efficiency at various load conditions provides the ability to overcome thermal challenges to help achieve miniaturization. Vishay offers leading-edge technologies to help with this efficiency improvement, as well as help to improve battery life and overall system performance.

## Tablet : Audio Subsystem, Audio Codec

---

### Load Switch

Product Name	Status	Description	Features	Package	Q-Level
<a href="#">DG3157DL</a>		High-Speed,Low Ron,Analog SW Break-before-make switching Minimal propagation delay	Vss=1.8V-6V max rDSon=6Ohm@4.5V Qinj=3pC, BW=250MHz	SMD SC-70	

## Tablet : Display, Ambient Light Sensors

---

### Backlight dimming

Product Name	Status	Description	Features	Package	Q-Level
<a href="#">TEMD6200</a>		Ambient Light Sensor $\lambda= 430 \text{ to } 610 \text{ nm}$ , $\phi=\pm 60 \text{ deg}$ LXW= 2mm X 1.25mm, H=0.85mm	High photo sensitivity Angle of half sensitivity: $\phi=$ Radiant sensitive area: 0.2	SMD 0805	

## Tablet : Display, Display Interface

### EMI Filter

Product Name	Status	Description	Features	Package	Q-Level
<a href="#">VEMI45AA-xxx</a>		4-Channel EMI-Filter with ESD protec Vrrm= 5V, Low load cap Cin< 60pf IR< 1uA, Rs= 100 ohm, F3dB= 100MHz, VES	Low profile < 0.6mm 4 Channel EMI filter RoHs Compliant	SMD LLP1713-9L	
<a href="#">VEMI45AB-xxx</a>		4-Channel EMI-Filter with ESD protectio Vrrm= 5V, Low load cap Cin< 40pf IR< 1uA, Rs= 100 ohm, F3dB= 130MHz	Low profile < 0.6mm 4 Channel EMI filter RoHs Compliant	SMD LLP1713-9L	
<a href="#">VEMI45AC-xxx</a>		4-Channel EMI-Filter with ESD protectio Vrrm= 5V, Low load cap Cin< 20pf IR< 1uA, Rs= 100 ohm, F3dB= 240MHz,	Low profile < 0.6mm 4- Channel EMI filter RoHs Compliant	SMD LLP1713-9L	
<a href="#">VEMI65AA-xxx</a>		6-Channel EMI-Filter with ESD protec Vrrm= 5V, Low load cap Cin< 60pf IR< 1uA, Rs= 100 ohm, F3dB= 100MHz	Low profile < 0.6mm 6 Channel EMI filter RoHs Compliant	SMD LLP2513-13L	
<a href="#">VEMI65AB-xxx</a>		6-Channel EMI-Filter with ESD protect Vrrm= 5V, Low load cap Cin< 40pf IR< 1uA, Rs= 100 ohm, F3dB= 130MHz,	Low profile < 0.6mm 6 Channel EMI filter RoHs Compliant	SMD LLP2513-13L	
<a href="#">VEMI65AC-xxx</a>		6-Channel EMI-Filter with ESD protect Vrrm= 5V, Low load cap Cin< 20pf IR< 1uA, Rs= 100 ohm, F3dB= 240MHz,	Low profile < 0.6mm 6 Channel EMI filter RoHs Compliant	SMD LLP2513-13L	
<a href="#">VEMI85AA-xxx</a>		8-Channel EMI-Filter with ESD protectio Vrrm= 5V, Low load cap Cin< 60pf IR< 1uA, Rs= 100 ohm, F3dB= 100MHz,	Low profile < 0.6mm 8 Channel EMI filter RoHs Compliant	SMD LLP3313-17L	
<a href="#">VEMI85AB-xxx</a>		8-Channel EMI-Filter with ESD protect Vrrm= 5V, Low load cap Cin< 40pf IR< 1uA, Rs= 100 ohm, F3dB= 130MHz	Low profile < 0.6mm 8 Channel EMI filter RoHs Compliant	SMD LLP3313-17L	
<a href="#">VEMI85AC-xxx</a>		8-Channel EMI-Filter with ESD protectio Vrrm= 5V, Low load cap Cin< 20pf IR< 1uA, Rs= 100 ohm, F3dB= 240MHz,	Low profile < 0.6mm 8 Channel EMI filter RoHs Compliant	SMD LLP3313-17L	

## Tablet : Display, HDMI Interface

### ESD Protection

Product Name	Status	Description	Features	Package	Q-Level
<a href="#">VBUS051BD-HD1</a>		Single Line ESD protection diode Vrrm= 5V, load capacitance Cd= 0.9pF leakage curr. IR < 0.1uA, VESD > 15KV	Low profile < 0.4mm 1-line ESD protection	SMD LLP1006-2L	
<a href="#">VBUS051CD-HD1</a>		Single Line ESD protection diode Vrrm= 5V, load capacitance Cd= 0.6pf leakage curr. IR < 0.1uA, VESD > 9KV	Low profile < 0.4mm 1-line ESD protection	SMD LLP1006-2L	
<a href="#">VBUS05L1-DD1</a>		BiSy, Single-Line ESD Protect Diode Vrrm= 5V, load capacitance Cd= 0.3pf leakage curr. IR < 0.1uA, VESD >20KV	Bidirectional Sym (BiSy) 1-line ESD protection RoHs Compliant	SMD LLP1006-2M	

### Load Switch

Product Name	Status	Description	Features	Package	Q-Level
<a href="#">DG9236DN-T1-E4</a>		Dual SPDT Analog Switch Vss= 2.7V to 16V max, Rdson=101 ohm Ton time= 70 nS, Toff time= 55nS,	Leakage curr<0.5nA max. low profile miniQFN-10 Low voltage, 1.8V	SMD MiniQFN-10L	

## Tablet : Display, Touch Screen

---

### ESD Protection

Product Name	Status	Description	Features	Package	Q-Level
<a href="#">VCUT0505B-HD1</a>		BiSy, Single-Line ESD Protect Diode Vrrm= 5V, Low load cap Cd=10pf leakage curr. IR < 0.1uA, VESD >20KV	Bidirectional Sym (BiSy) 1-line ESD protection RoHs Compliant	SMD LLP1006-2L	
<a href="#">VCUT05B1-DD1</a>		BiSy, Single-Line ESD Protect Diode Vrrm= 5V, Low load cap Cd=10pf leakage curr. IR < 0.1uA, VESD >30KV	Bidirectional Sym (BiSy) 1-line ESD protection RoHs Compliant	SMD LLP1006-2M	
<a href="#">VCUT0714A-HD1</a>		BiAs, Single-Line ESD Protect Diode Vrrm= 5V, Low load cap Cd = 10pF leakage curr. IR < 0.1uA, VESD >30KV	Low profile <0.4mm 1-line ESD protection RoHs Compliant	SMD LLP1006-2L	

## Tablet : Display, Touch Screen control

---

### Load Switch

Product Name	Status	Description	Features	Package	Q-Level
<a href="#">DG9236DN-T1-E4</a>		Dual SPDT Analog Switch Vss=2.7V to 16V max, Rdson=101ohm Ton time= 70 nS, Toff time= 55nS	Leakage curr<0.5nA max. Lead-free low profile Low voltage, 1.8V CMOS	SMD MiniQFN-10L	
<a href="#">DG9251EN-T1-E4</a>		8-Chl,Dual4-Chl, Triple2-Chl Multiplexer Vss= 2.7V to 16V max, Rdson= 145 ohm Ton time= 335 nS, Toff time= 150nS	Lowcharge inject<4.1pC Halogen-free	SMD MiniQFN-16	



## Tablet : Power Management, Charger

---

### HS/LS Switching MOSFET

Product Name	Status	Description	Features	Package	Q-Level
<a href="#">SiA4444DJT</a>	NEW	N-Channel 30-V (D-S) MOSFET Rdson= 22m ohm @ Vgs= 4.5V Id= 12A, Qg(typ)= 5nC	Thermally enhanced small footprint SC-70 Ultra thin <.6mm	SMD PowerPAK SC-70-6L	

## Tablet : Power Management, CPU / GPU Core

---

H/L side MOSFET

Product Name	Status	Description	Features	Package	Q-Level
<a href="#">SiS412DN-T1-GE3</a>	NEW	N-Channel 30-V (D-S) MOSFET Rdson= 30m ohm @ Vgs= 4.5V Id= 12A, Qg(typ)= 3.8nC	TrenchFET® Power MOSF Low RDSon and FOM 100 % Rg Tested and Halog	SMD PPAK 1212-8	

## Tablet : Power Management, System

---

H/L side MOSFET

Product Name	Status	Description	Features	Package	Q-Level
<a href="#">SI4214DDY-T1-GE3</a>		Dual N-Channel 30-V (D-S) MOSFETs Rdson= 23m ohm @ Vgs= 4.5V Id= 8.5A, Qg(typ)= 7.1nC	TrenchFET® Power MOSF Low RDSon and FOM 100 % Rg Tested and Halog	SMD SO-8	

## Tablet : System DSP, Load Switches

---

### AD-IN and Battery discharge

Product Name	Status	Description	Features	Package	Q-Level
<a href="#">Si4925DDY</a>	NEW	Dual P-Channel 30-V (D-S) MOSFET Rdson= 41m ohm @ Vgs= -4.5V TrenchFET® Power MOSFET	Id= -8A, Qg(typ)= 15nC Low RDson and FOM 100% Rg tested	SMD SO-8	