# **Device Information**

HCS163MS

**Printer Friendly Version** 

Counter, Synchronous, Presettable, Look Ahead Carry, Rad-Hard, High-Speed, CMOS, Logic



**Get Datasheet** 

### **Ordering Information**

Part No.	Status	Temp.	Package	MSL	SMD	Price US \$	
HCS163DMSR	Active	-	16 Ld SBDIP	N/A	5962R9580701VEC	Contact Us	Buy
HCS163KMSR	Active	-	<u>FlatPack</u>	N/A	5962R9580701VXC	Contact Us	Buy

The price listed is the manufacturer's suggested retail price for quantities between 100 and 999 units. However, prices in today's market are fluid and may change without notice.

MSL = Moisture Sensitivity Level - per IPC/JEDEC J-STD-020

**SMD** = Standard Microcircuit Drawing

### **Description**

The Intersil HCS163MS is a Radiation Hardened synchronous presettable binary counter that features lookahead carry logic for use in high speed counting applications. Counting and parallel load, and presetting are all accomplished synchronously with the positive transition of the clock.

The HCS163MS utilizes advanced CMOS/SOS technology to achieve high-speed operation. This device is a member of radiation hardened, high-speed, CMOS/SOS Logic Family.

The HCS163MS is supplied in a 16 lead Ceramic flatpack (K suffix) or a SBDIP Package (D suffix).

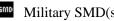
## **Key Features**

- 3 Micron Radiation Hardened CMOS SOS
- Total Dose 200K RAD (Si)
- SEP Effective LET No Upsets: >100 MEV-cm<sup>2</sup>/mg
- Single Event Upset (SEU) Immunity < 2 x 10<sup>-9</sup> Errors/Bit-Day (Typ)
- Dose Rate Survivability: >1 x 10<sup>12</sup> RAD (Si)/s
- Dose Rate Upset: >10<sup>10</sup> RAD (Si)/s 20ns Pulse
- Latch-Up Free Under Any Conditions
- Military Temperature Range: -55°C to +125°C
- Significant Power Reduction Compared to LSTTL ICs
- DC Operating Voltage Range: 4.5V to 5.5V
- Input Logic Levels
  - $\circ$  VIL = 30% of VCC
  - $\circ$  VIH = 70% of VCC
- Input Current Levels Ii d 5µA at VOL, VOH

#### **Related Documentation**

Datasheet(s):

• Radiation Hardened Synchronous Presettable Counter



Military SMD(s):
Radiation Hardened Synchronous Presettable Counter

### **Parametric Data**

RH Level	200				
Related Devices	Parametric Table				
<u>CD40193BMS</u>	Up/Down Counter, Presettable, Dual Clock, Reset, Binary Type, Rad-Hard, CMOS, Logic				
<u>CD4020BMS</u>	Counter/Divider, 14-Stage, Binary Ripple-Carry, Rad-Hard, CMOS, Logic				
CD4024BMS	Couter/Divider, 7-Stage, Binary Ripple-Carry, Rad-Hard, CMOS, Logic				
<u>CD4029BMS</u>	Counter, Up/Down, Presettable, Rad-Hard, CMOS, Logic				
CD4040BMS	Couter/Divider, 12-Stage, Binary Ripple-Carry, Rad-Hard, CMOS, Logic				
CD4060BMS	Couter/Divider, 14-Stage, Binary Ripple-Carry, Rad-Hard, CMOS, Logic				
CD4520BMS	Counter, Up, Binary, Dual, Rad-Hard, CMOS, Logic				
HCS161MS	Counter, Synchronous, 4-Input Binary, Asnchronous Reset, Look Ahead Carry, Rad-Hard, High-Speed, CMOS, Logic				
HCTS191MS	Counter, Up/Down, Snchronous, TTL Inputs, Rad-Hard, High-Speed, CMOS, Logic				
HCTS193MS	Counter, 4-Bit, Up/Down, Synchronous, TTL Inputs, Rad-Hard, High-Speed, CMOS, Logic				
HCTS393MS	Counter, Binary, 4-Stage, TTL Inputs, Dual, Rad-Hard, High-Speed, CMOS, Logic				

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