



The IP&E
Specialist

Commercial Components



In Stock and
Available to Sell



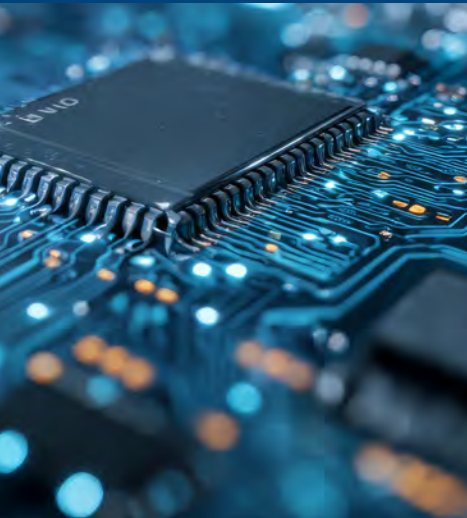
Reach your local
TTI Specialist at
1.800.CALL.TTI

tti.com



Keeping business running smoothly and at top efficiency with today's data and technology demands require the widest and deepest inventory of high-quality, high-performance components. And TTI stocks them.

Featuring the most comprehensive passive, connector, discrete semiconductor and electromechanical inventory from more than 70 industry-leading manufacturers, TTI delivers the right part at the right time—every time—to keep you up to date, up to speed and ahead of the rest.



The Electronic Component Specialists

When it comes to IP&E and discrete components, TTI is your go-to resource with the broadest and deepest inventory and a reputation for quality and on-time delivery second to none.

Ask your TTI Sales Specialist about our Online Procurement programs – the quick and easy way to order components online using your terms account, seeing the status of your orders, uploading your BOM and doing it all with secure 24/7 access.

3M Interconnect Solutions

Abrakon

Amphenol

Amphenol Advanced Sensors
Amphenol Aerospace
Amphenol Alden
Amphenol All Sensors
Amphenol Canada
Amphenol Communications Solutions
Amphenol Connex
Amphenol CONEC
Amphenol Entertainment
Amphenol FCI
Amphenol Fiber Optics
Amphenol Industrial
Amphenol Matrix
Amphenol Mobile Consumer Products
Amphenol Nexus
Amphenol PCD
Amphenol Piher Sensing Systems
Amphenol Positronic
Amphenol RF
Amphenol SGX Technology
Amphenol Sine
Amphenol Spectra Strip
Amphenol SSI Technology
Amphenol SV Microwave
Amphenol TCS
Amphenol Times Microwave Systems
Amphenol Tuchel
Carlisle Interconnect Technologies/
Tri-Star

ams

OSRAM

Aptiv (formerly Delphi)

Barker Microfarads (BMI)

Bourns

J.W. Miller
Keko-Varicon
Komatsulite
Riedon™
Transtek

Chemi-Con

Conesys

Aero Electric
J-Tech

Cornell Dubilier (CDE) (See Knowles/CDE)

Cree LED

CTS - Tusonix

Dearborn Electronics

Delevan

Delta Electronics Manufacturing

Dialight

Eaton

Bussmann
Electronics
Royal Power
Souriau-Sunbank
Transportation and eMobility

Electrical Components International (formerly Fargo Assembly)

DillBlox®

Glenair

HARTING

Harwin

HellermannTyton

Honeywell

INCON Inc.

iNRCORE

Gowanda
Vanguard

ITT Cannon

Micro-Mode

JAE Electronics

Kingbright

Knowles

Dielectric Labs (DLI)
IMC
Johanson (Trimmers)
Novacap
Syfer
Voltronics

Knowles/CDE

Aerovox
Illinois Capacitor

KOA Speer

KOSTAL

KYOCERA AVX

ATC
Elco
Ethertronics

KYOCERA Display

Laird Performance Materials

Lear Corporation

Littelfuse

C&K Components
Carling Technologies
Hamlin
Hartland Controls
IXYS
Littelfuse Automotive
Teccor
US SENSOR

Meder (Standex)

Molex

AFFINITY MEDICAL
AirBorn Interconnects
BittWare
Brad
FCT
Flamar
GW Connect
ISI
Laird CVS
Nistica
OPLINK
Philips Medisize
Polymicro Technologies
PROTEK
SDP Telecom
Sensorcon
Soligie
SST
Temp-Flex
TRITON
Woodhead

Motherson (formerly PKC Group)

Murata

Murata Power Solutions (MPS)

Nichicon

ICEL

NKK Switches

OHMITE

Arcol

OMRON

OMRON Automation & Safety
OMRON Electronic Components

OSRAM Opto Semiconductor (ams)

Panasonic

Aromat
Sanyo

Panduit

PANJIT

Phoenix Contact

Preci-Dip

ROHM Semiconductor

Samtec

Sensata

Airpax
BEI Sensors
Crydom
Cynergy3
Gigavac
Kavlico
Sensor Solutions

Smiths Interconnect

Hypertac
IDI
Sabritec

Spectrum Control (formerly APITech)

Standex Electronics

Sumitomo Wiring Systems

Switchcraft Conxall

TAIYO YUDEN

TDK

EPCOS

TE Connectivity

Agastat
Alcoswitch
AMP
Augat
Axicom
CII Technologies
Corcom
DEUTSCH
Elcon
ERNI
Hartman
HTS
Kemtron
Kilovac
Laird Antennas
Madison Cable
Measurement Specialties
Microdot
Nanonics
OEG
Potter & Brumfield
Products Unlimited
Raychem
Schaffner
Schrack
Seacon

Toshiba

TT Electronics

BI Technologies
IRC
OPTEK
Semelab
Welwyn

Vanguard Electronics

Vishay

Angstrohm
Ametherm
Barry Industries
BCcomponents
Beyschlag
Cera-Mite
Dale
Draloric
Electro-Films
Huntington/Milwaukee
Roederstein
Semiconductors
Sfernice
Siliconix
Spectrol
Sprague
Tansitor
Techno
Thin Film
Vitramon

VPG Foil Resistors

VPT Components

WIMA

YAGEO Group

KEMET
Nexensos
Pulse
XSemi

Yazaki



PROTECTION DEVICES	Bourns	Chemi-Con	Eaton	KOA Speer	KYOCERA AVX	Littelfuse	Murata	Panasonic	ROHM Semiconductor	TDK	TDK - EPCOS	Vishay	YAGEO	YAGEO Nexensos
OVER CURRENT														
Automotive (Blade) Fuses			◆		◆									
Axial Fuses	◆		◆		◆									
Cartridge Fuses	◆		◆		◆									
Electronic Current Limiters	◆				◆									
Fuse Blocks	◆		◆		◆									
Fuse Holders	◆		◆		◆									
NTC Thermistors	◆		◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Power Distribution Modules			◆		◆									
Power (Electrical) Fuses	◆		◆		◆									
PTC Thermistors	◆		◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Radial Leaded Resettable Fuses (PTC)	◆		◆		◆				◆	◆			◆	
Radial Subminiature Fuses			◆		◆									
Surface Mount Resettable Fuses (PTC)	◆		◆		◆								◆	
Surface Mount Fuses	◆		◆		◆							◆		
Thermal Cutoffs (TCO)/ Overtemperature (OTP)	◆				◆									◆
Thin Film (Chip) Fuses	◆		◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
OVER VOLTAGE														
Gas Discharge Tube (GDT)	◆	◆			◆					◆			◆	
Hybrid GDT/MOV	◆	◆			◆					◆			◆	
Line Protection Networks	◆				◆								◆	
Polymer ESD Suppression			◆	◆	◆									
Protection Thyristors	◆				◆									◆
Surface Mount Varistors (MLV)	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Surge Product Devices (SPD)	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Thermal MOV		◆	◆		◆					◆			◆	
Through-Hole Varistors (MOV)	◆	◆	◆		◆			◆		◆	◆	◆	◆	◆
TVS Diodes	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
TVS Diodes Arrays	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆

● Lead & Lead-free compliant parts available. ◆ Lead-free only parts available.

PIEZO FILM SENSORS	Murata	TDK	TE Connectivity
SOUND DEVICES			
Buzzer	●	●	
Piezo	●	●	
Receiver	●		
Ringer	●		
Sensor	●	●	◆
Sounder	●		
Speaker	●		

THERMAL MANAGEMENT	Laird Performance Materials	OHMITE	Panasonic
Extruded Heatsinks		●	
Liquid Coldplates		●	
Liquid Cooling		●	
Thermal Gap Filler/Paste	◆		
Thermal Solutions Graphite Sheets	◆		●

TIMING DEVICES	Abracon	Eaton	KYOCERA AVX	Murata	Spectrum Control	Vishay - Dale
FREQUENCY CONTROL						
Crystals	●	●	●	●	●	●
Oscillators	●	●	●	●	●	●
Resonators	●		●	●		
Tuning Forks	●		●			
Precision Timing	●					

POWER CONVERSION	Murata Power Solutions	Eaton	OMRON Automation & Safety	PANJIT	Phoenix Contact	ROHM Semiconductor	TDK	Vishay
AC/DC Power Supplies	◆		◆	◆	◆	◆		
DC/DC Power Converters	◆	◆	◆	◆	◆	◆	◆	◆
DC/AC Power Inverters		◆	◆	◆				

CIRCUIT BREAKERS	Carling Technologies (Littelfuse)	Eaton	Littelfuse	Phoenix Contact	Sensata (Airpax)	TE Connectivity
AUTOMOTIVE						
Electronic Circuit Breaker			◆			
Ground Fault Circuit Breakers	◆					
Hydraulic/Magnetic Circuit Breakers	◆			◆	◆	◆
Thermal Circuit Breakers	◆			◆		◆
Thermal Magnetic			◆			

FILTERS	Abracon	Amphenol RF	Delevan	Eaton	KEMET - NEC TOKIN	Knowles	KYOCERA AVX	Molex	Murata	Panasonic	Phoenix Contact	Pulse	Spectrum Control	TAIYO YUDEN	TDK - EPCOS	TE Connectivity - Corcom	TE Connectivity - Schaffner	Vishay - Barry	YAGEO
EMI/RFI RF FILTERS RF WIRELESS																			
Amplifiers									●				●						
Antennas	●	●					●	●	●			●	●	◆	●	●			●
Attenuators													●						●
Couplers													●	◆	●				
EMI/RFI Filters	●	◆	◆	●	●	●	●	●	◆	●			●	◆	●		◆	◆	●
Feed-Thru Filters						●	●		●				●	◆	●		◆	◆	
Noise Suppression Sheets			◆		◆										●		◆	◆	
RF/Microwave Filters	◆			◆			●		●				●	●	●				●
RF Module									●	●			●	●	●				●
SAW Filters	●					◆		◆	●	●			●	◆	◆				●
Surface Mount Filters	●					●	●		●	●			●	◆	●				●

MAGNETICS	Abracon	Bourns - JW Miller	Delevan	Eaton	Gowanda	INRCORE	INCORE - Vanguard	KEMET - NEC TOKIN	KYOCERA AVX	Laird Performance Materials	Murata	Panasonic	Pulse	Spectrum Control	TAIYO YUDEN	TDK - EPCOS	TT Electronics - BI Technologies	Vishay - Dale
FERRITES INDUCTORS TRANSFORMERS																		
Air Coil Inductors	●	●	●	●	●	●	●	●	◆									
Common Mode Chokes	●	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Custom Inductors	●	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ferrite Beads	●	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ferrite Cores/Clamp Filters	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
High-Current Inductors	●	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Leaded Inductors	●	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Multilayer Inductors	●	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Power Inductors	●	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
RF Inductors	●	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Thin Film Inductors	●							◆		◆								
Toroid Inductors	●	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Transformers	●	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Wirewound/Coil Inductors	●	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆





	3M	Amphenol	Amphenol Communications Solutions (ACS)/ Amphenol Commercial/FCI/TCS	Amphenol PCD	Amphenol Positronic	Bourns	HARTING	Harwin	INCON Inc.	ITT Cannon	JAE Electronics	KYOCERA AVX - Elco	Molex	OMRON	Panasonic	Samtec	Smiths Interconnect	Souriau (Eaton)	TE Connectivity
BACKPLANE																			
BOARD-TO-BOARD																			
DEVICE-TO-BOARD																			
10 Gb/s+ Solutions	◆	◆	◆						◆			◆	◆	◆	◆	◆	◆	◆	◆
2.00 mm (.079 inch)	◆		◆					◆			◆	◆				◆	◆	◆	◆
AOC Assemblies	◆		◆									◆			◆				◆
Assemblies (Backplane)	◆		◆									◆							◆
ATCA/MicroTCA	◆		◆									◆	◆			◆			◆
Cable Assemblies	◆	◆	◆			◆			◆		◆	◆				◆		◆	◆
Card Edge	◆	◆	◆					◆	◆		◆					◆			◆
Compact PCI	◆	◆	◆		◆				◆		◆	◆				◆	◆		◆
DIN 41612 (Eurocard)	◆		◆			◆					◆	◆	◆						◆
Fiber Optic	◆	◆	◆	◆		◆					◆					◆	◆	◆	◆
Future Bus	◆		◆			◆					◆								◆
Hard Metric	◆		◆			◆					◆	◆						◆	◆
High-Speed Cable Assemblies	◆	◆	◆									◆				◆	◆		◆
PCI Express	◆	◆	◆						◆		◆					◆			◆
Power	◆		◆	◆	◆	◆					◆	◆				◆	◆		◆
RF / Ganged RF		◆	◆									◆				◆			◆
SCA-2			◆									◆							◆
VPX (Ruggedized, Embedded)	◆															◆	◆		◆
BOARD-TO-BOARD																			
Ball Grid Array (BGA)	◆		◆									◆							◆
Battery Connectors			◆			◆	◆				◆	◆	◆	◆					◆
Board Stacking	◆	◆	◆			◆	◆				◆	◆	◆	◆		◆	◆		◆
Breakaway Headers	◆	◆	◆				◆					◆				◆			◆
Compression	◆		◆				◆				◆	◆				◆			◆
Headers & Receptacles	◆	◆	◆	◆	◆		◆				◆	◆	◆	◆	◆	◆	◆		◆
Mezzanine/FPC	◆		◆	◆			◆				◆	◆	◆	◆	◆	◆	◆		◆
Power	◆	◆	◆	◆	◆	◆	◆	◆			◆	◆	◆	◆	◆	◆	◆		◆
SCSI	◆	◆	◆		◆	◆					◆					◆			◆
Shunts	◆	◆	◆				◆				◆	◆				◆			◆
Stacking	◆	◆	◆	◆		◆	◆				◆	◆	◆	◆	◆	◆	◆		◆
DEVICE-TO-BOARD																			
AOC Assemblies	◆		◆									◆							◆
DIMM			◆									◆	◆						◆
DIP	◆		◆				◆						◆						◆
High-Speed Cable Assemblies	◆	◆	◆									◆				◆	◆		◆
PCMCIA	◆		◆									◆							◆
PGA	◆											◆							◆
PLCC	◆		◆				◆									◆			◆
Rambus																			◆
RIMM/DIMM/SIMM			◆									◆							◆
SIP	◆						◆												◆
Slot 1 & 2																			◆
SO DIMM & RIMM			◆									◆	◆						◆
Test / Burn-In Sockets	◆																		◆
Transistor																			◆

◆ Lead & Lead-free compliant parts available. ◆ Lead-free only parts available.

	3M	Amphenol Aerospace	Amphenol RF	Amphenol SV Microwave	Aptiv (formerly Delphi)	Carlisle Interconnect - Tri-Star	Delta Electronics Mfg Corp.	ITT Cannon - Micro-Mode	JAE Electronics	Lear	Molex	Samtec	Smiths Interconnect	Switchcraft Conxall	TE Connectivity	Yazaki
1.0 / 2.3			◆				◆				◆	◆			◆	
1.6 / 5.6			◆								◆				◆	
7 / 16			◆				◆				◆				◆	
Attenuators							◆				◆					
BMA				◆			◆				◆				◆	
BNC (50/75Ω)			◆				◆	◆			◆	◆	◆	◆	◆	
BNC (Miniature)			◆								◆	◆	◆	◆	◆	
B to B Blindmate/Compression				◆			◆				◆				◆	
BSA			◆	◆			◆				◆				◆	
FAKRA			◆	◆						◆	◆				◆	◆
Hermetic							◆									
MCX/MMCX			◆				◆				◆	◆			◆	
MHV/SHV			◆				◆				◆	◆			◆	
Microwave Cable Assemblies											◆		◆			
Precision ¹			◆								◆	◆			◆	
QMA			◆				◆				◆				◆	
Reverse Polarity ²			◆								◆				◆	
RF Cable Assemblies	◆		◆	◆	◆		◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Shielded Terminators			◆								◆				◆	
SMA			◆	◆			◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
SMB (50/75Ω)			◆	◆			◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
SMB (Miniature)			◆								◆	◆			◆	
SMC			◆	◆			◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
SMP			◆	◆			◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
SMT			◆								◆				◆	
SSMA				◆							◆	◆			◆	
TNC			◆	◆			◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Triax			◆	◆			◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Twinax	◆	◆	◆	◆			◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Type F/G			◆								◆				◆	
Type N			◆	◆			◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
UHF/MiniUHF			◆				◆	◆	◆	◆	◆	◆	◆	◆	◆	◆

¹ 2.4 / 2.9 / 3.5 / 7mm
² BNC, MMCX, N, SMA, TNC

	3M	Amphenol	Amphenol Solutions (ACS)/FCI	C&K Components	JAE Electronics	KYOCERA AVX - Elco	Molex	TE Connectivity
CompactFlash™	◆	◆	◆		◆	◆	◆	◆
DDR/DDR2/Mini DDR2			◆			◆	◆	◆
Express Card			◆					◆
Full Size Card				◆				◆
Memory Stick/Duo								◆
Micro SD			◆		◆	◆	◆	◆
Mini SD			◆					◆
MMC		◆	◆			◆	◆	◆
PC Card/CardBus		◆	◆					◆
PCMCIA		◆	◆					◆
SD (Secure Digital)		◆	◆		◆	◆	◆	◆
Smart Card (SAM)				◆				◆
Smart Card (SIM)		◆	◆		◆	◆	◆	◆
TransF		◆						◆
xD		◆						◆

CompactFlash™ is a trademark of the Compact Flash Association





TERMINAL BLOCKS	Amphenol PCD	Eaton	HARTING	Molex - Beau	Phoenix Contact	Souriau (Eaton)	Spectrum Control	TE Connectivity
Barrier Strips		◆					◆	◆
Europa		◆						◆
Eurostyle – Fixed / Pluggable	◆		◆	◆	◆		◆	◆
2.54/3.50/3.81/5.0/5.08 mm	◆		◆	◆	◆			◆
Filtered							◆	
Interface Modules	◆				◆			
NEMA								◆
Phenolic				◆				◆
Push Button				◆				
Rail Mounted	◆			◆	◆	◆		◆
Screw Terminal	◆	◆		◆	◆	◆	◆	◆
Spring Clamp	◆			◆	◆			◆

AUDIO	Amphenol Audio	Amphenol Nexus	Amphenol Tuchel	Spectrum Control	Switchcraft Conxall	TE Connectivity
1/4" Phone (T Series, M Series and Jacks)	◆					◆
1/4" Phone Switch Plug	◆					◆
3.5mm PCB	◆					◆
AC PDN	◆					
AC Series XLR Cable	◆					◆
AC Series XLR Metal "Z" Chassis Mount	◆					
AC Series XLR PBC Chassis Mount	◆					◆
AC Series Dual 1/4" XLR	◆					
AC Series XLR Thermoplastic Chassis Mount	◆					◆
Accessories	◆	◆				◆
AX Series XLR Cable	◆					◆
BNC 75ohm Connectors	◆					◆
C Type Combo 1/4" - XLR PCB	◆					
EP/AP Series High Power	◆					
Multipin Series	◆	◆	◆	◆		
RCA Series	◆	◆				◆
SP High Current Loudspeaker	◆					◆
XLRnet Series Cable	◆					
XLRnet Series PCB/Chassis Mount	◆					

◆ Lead-free only parts available.

INPUT/ OUTPUT	3M	Abrakon	Amphenol	Amphenol Communications Solutions (ACS)/Amphenol Commercial/FCI	Amphenol PCD	Amphenol CONEC	Amphenol Positronic	Carlisle Interconnect - Tri-Star	Conesys - Aero Electric	Conesys - J-Tech	Glenair	HARTING	Harwin	iNCON Inc.	ITT Cannon	KYOCERA AVX - Elco	Molex	OMRON	Phoenix Contact	Pulse	Samtec	Smiths Interconnect	Souriau (Eaton)	Spectrum Control	Switchcraft Conxall	TE Connectivity
1394 & 1394b	◆		◆													◆	◆							◆	◆	
Audio			◆		◆											◆									◆	◆
Camera Link Mini Camera Link	◆																									
Circular	◆		◆			◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Combo I/O	◆			◆		◆	◆				◆	◆	◆									◆	◆	◆	◆	◆
Display Port				◆																						
D-Subminiature	◆	◆	◆	◆		◆	◆						◆		◆		◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
DVI			◆	◆												◆	◆	◆								◆
Fiber Channel				◆													◆						◆	◆	◆	◆
Fiber Optic	◆	◆	◆	◆		◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Filtered I/O	◆	◆	◆	◆				◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
HDMI/Micro HDMI			◆	◆												◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
IPass				◆													◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
InfiniBand®			◆	◆												◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
M12/M12D /M8						◆							◆				◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Micro D			◆								◆					◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Mini DIN/Circular DIN			◆													◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Mini D-Subminiature											◆						◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Mobile Systems																	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Modular Plugs & Jacks	◆	◆	◆	◆		◆					◆					◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
PCI Express				◆													◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Power	◆	◆	◆	◆		◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Push/Pull												◆					◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Rectangular	◆	◆			◆	◆			◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
RF/Coax/Microwave	◆	◆						◆								◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
RJ/Industrial Ethernet		◆	◆	◆	◆	◆					◆					◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
SATA/SAS/Mini SATA	◆	◆	◆	◆	◆	◆										◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
SCSI	◆	◆	◆	◆	◆	◆		◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
SFP/XFP				◆													◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
TDP																	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
USB/Mini USB/USB OTG			◆	◆	◆	◆					◆					◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆

InfiniBand® is a trademark of the InfiniBand Trade Association





RELAYS	FCL Components	KEMET-NECTOKIN	Littelfuse	Littelfuse-Cole Hersee	Littelfuse - Hamlin	Littelfuse - Hartland	Littelfuse - IXYS	OMRON	Panasonic	Phoenix Contact	Sensata - Crydom	Sensata - Cynergy	Sensata - Gigavac	TDK	TE Connectivity
Automotive	◆		◆					◆	◆						◆
Communication		◆						◆	◆						◆
Compressor					◆										◆
Contactors			◆					◆	◆	◆			◆	◆	◆
Crystal Can															◆
Definite Purpose Contactors					◆										◆
DIN Rail Mounted								◆	◆	◆	◆				◆
Dry Reed				◆											◆
Forcibly-Guided Contact								◆	◆	◆					◆
General Purpose								◆	◆	◆		◆	◆		◆
High-Voltage Switching								◆	◆	◆		◆	◆		◆
Industrial DC & AC								◆	◆	◆	◆				◆
Input/Output Modules								◆		◆					◆
Low-Signal PCB	◆	◆						◆	◆						◆
Magnetic Latching	◆	◆						◆	◆						◆
Military															◆
Miniature PCB	◆							◆	◆	◆					◆
Monitoring								◆	◆	◆					◆
MOSFET					◆			◆	◆	◆		◆			◆
Panel/Plug-In								◆	◆	◆					◆
Phase Sequencing															◆
Power								◆	◆	◆					◆
Power Controllers															◆
Power Distribution Panels															◆
Power Modules												◆			◆
Power PCB	◆							◆	◆	◆					◆
Programmable Time Delay								◆		◆	◆				◆
Protective								◆	◆						◆
Reed				◆								◆			◆
Reverse Power															◆
RF								◆	◆			◆			◆
Rotary															◆
Safety								◆	◆	◆					◆
Signal	◆	◆						◆	◆	◆					◆
Sockets								◆	◆						◆
Solid State	◆	◆	◆					◆	◆	◆	◆				◆
Time Delay								◆	◆	◆					◆
Timers								◆	◆	◆					◆
TO-5															◆
Traffic Control															◆

◆ Lead-free only parts available.

SWITCHES	Bourns	C&K Components	Carling Technologies (Littelfuse)	Eaton	Honeywell	Littelfuse - Hamlin	NKK Switches	OMRON	Panasonic	Sensata (Airtax)	Standex - Meder	TE Connectivity
Anti-Vandal		◆	◆									◆
Contact Block									◆		◆	◆
Detector		◆							◆	◆		◆
DIP	◆	◆							◆			◆
E Stop					◆		◆	◆				◆
Encoder		◆			◆				◆			◆
Fader												◆
Industrial		◆	◆	◆			◆	◆				◆
Keylock		◆					◆	◆				◆
Keypad		◆										◆
Knobs									◆			◆
Limit					◆			◆				◆
Membrane Keypad							◆					◆
Navigation		◆	◆									◆
Optical					◆				◆			◆
Paddle		◆	◆	◆								◆
Panel Mount		◆	◆	◆	◆			◆				◆
Power Rocker		◆	◆	◆			◆	◆				◆
Pressure Switch					◆							◆
Pushbutton	◆	◆	◆	◆	◆	◆	◆	◆				◆
Pushwheel		◆										◆
Reed					◆							◆
Rocker		◆	◆	◆			◆	◆				◆
Rotary	◆	◆	◆	◆	◆	◆	◆	◆				◆
Safety		◆		◆				◆				◆
Selector		◆	◆					◆				◆
Slide		◆	◆					◆				◆
Smart Display							◆					◆
Snap Action		◆		◆			◆	◆				◆
Special Purpose		◆	◆	◆				◆				◆
Switchlock		◆					◆					◆
Surface Mount	◆	◆	◆	◆	◆	◆	◆	◆				◆
Tactile	◆	◆					◆	◆				◆
Thumbwheel		◆						◆				◆
Tilt		◆					◆					◆
Toggle		◆	◆	◆	◆	◆	◆	◆				◆
Vacuum				◆								◆

SENSORS	Amphenol Advanced Sensors	Amphenol All Sensors	Amphenol Piber Sensing Systems	Amphenol SGX	ams OSRAM	Bourns	Eaton	Honeywell	KEMET	KOA Speer	KYOCERA AVX	Littelfuse (Hamlin, US Sensor)	Molex/Contrinex	Murata	OHMITE	OMRON Automation & Safety	OMRON Components	Panasonic	Phoenix Contact	ROHM Semiconductor	Sensata (BEI Sensors, Cynergy3, Kavlico)	SGS Sensortech	SSI Technologies	Standex Meder	TDK/EP COS	TE Connectivity Sensor Solutions	TT Electronics	Vishay	Vishay - Sfernice
---------	---------------------------	----------------------	--------------------------------	--------------	-----------	--------	-------	-----------	-------	-----------	-------------	--------------------------------	-----------------	--------	--------	---------------------------	------------------	-----------	-----------------	--------------------	--	----------------	------------------	---------------	------------	----------------------------------	----------------	--------	-------------------

MOTION/POSITION/SPEED	Amphenol Advanced Sensors	Amphenol All Sensors	Amphenol Piber Sensing Systems	Amphenol SGX	ams OSRAM	Bourns	Eaton	Honeywell	KEMET	KOA Speer	KYOCERA AVX	Littelfuse (Hamlin, US Sensor)	Molex/Contrinex	Murata	OHMITE	OMRON Automation & Safety	OMRON Components	Panasonic	Phoenix Contact	ROHM Semiconductor	Sensata (BEI Sensors, Cynergy3, Kavlico)	SGS Sensortech	SSI Technologies	Standex Meder	TDK/EP COS	TE Connectivity Sensor Solutions	TT Electronics	Vishay	Vishay - Sfernice	
Accelerometer & Vibration																◆				◆							◆			
Gyroscopes															◆						◆							◆		
Inertial Combo																			◆											
Liquid Level												◆	◆										◆	◆			◆	◆	◆	
Hall Effect & Reed (Switch/Latch)										◆		◆									◆	◆			◆	◆	◆	◆	◆	
Linear Position (LVDT)																						◆							◆	
Rotary Position, Encoders										◆												◆						◆	◆	
Proximity (Inductive, Capacitive)												◆	◆	◆								◆					◆	◆	◆	
Speed (Hall Effect)										◆												◆								
Ultrasonic														◆	◆							◆					◆			

OPTICAL	Amphenol Advanced Sensors	Amphenol All Sensors	Amphenol Piber Sensing Systems	Amphenol SGX	ams OSRAM	Bourns	Eaton	Honeywell	KEMET	KOA Speer	KYOCERA AVX	Littelfuse (Hamlin, US Sensor)	Molex/Contrinex	Murata	OHMITE	OMRON Automation & Safety	OMRON Components	Panasonic	Phoenix Contact	ROHM Semiconductor	Sensata (BEI Sensors, Cynergy3, Kavlico)	SGS Sensortech	SSI Technologies	Standex Meder	TDK/EP COS	TE Connectivity Sensor Solutions	TT Electronics	Vishay	Vishay - Sfernice	
Ambient Light/Proximity																					◆							◆	◆	
Optoelectronics (including Infrared)		◆								◆											◆	◆						◆	◆	◆
Photoelectric/Safety														◆																
Color																													◆	
Time of Flight																														
UAV/Solar	◆																												◆	

PRESSURE/FORCE/FLOW	Amphenol Advanced Sensors	Amphenol All Sensors	Amphenol Piber Sensing Systems	Amphenol SGX	ams OSRAM	Bourns	Eaton	Honeywell	KEMET	KOA Speer	KYOCERA AVX	Littelfuse (Hamlin, US Sensor)	Molex/Contrinex	Murata	OHMITE	OMRON Automation & Safety	OMRON Components	Panasonic	Phoenix Contact	ROHM Semiconductor	Sensata (BEI Sensors, Cynergy3, Kavlico)	SGS Sensortech	SSI Technologies	Standex Meder	TDK/EP COS	TE Connectivity Sensor Solutions	TT Electronics	Vishay	Vishay - Sfernice
Flow (Air/Gas)		◆																			◆								◆
Force																													◆
Load Cell/Load Pin																													◆
Pressure (Heavy Duty, Transducer)		◆																				◆		◆				◆	
Pressure (SMT/THT)		◆	◆																			◆						◆	

ENVIRONMENTAL	Amphenol Advanced Sensors	Amphenol All Sensors	Amphenol Piber Sensing Systems	Amphenol SGX	ams OSRAM	Bourns	Eaton	Honeywell	KEMET	KOA Speer	KYOCERA AVX	Littelfuse (Hamlin, US Sensor)	Molex/Contrinex	Murata	OHMITE	OMRON Automation & Safety	OMRON Components	Panasonic	Phoenix Contact	ROHM Semiconductor	Sensata (BEI Sensors, Cynergy3, Kavlico)	SGS Sensortech	SSI Technologies	Standex Meder	TDK/EP COS	TE Connectivity Sensor Solutions	TT Electronics	Vishay	Vishay - Sfernice
Fine Particle		◆																			◆	◆							◆
CO2 and VOC																							◆						◆
Digital Combination		◆	◆																									◆	
Gas		◆																					◆						
Humidity		◆																										◆	
NTC & PTC Thermistors		◆																										◆	◆
Temperature Sensing Probes & Assemblies		◆																										◆	◆
RTD		◆																										◆	◆
Infrared/Thermopiles		◆																										◆	◆
Thermocouple		◆																										◆	◆

OTHER	Amphenol Advanced Sensors	Amphenol
-------	---------------------------	----------

OPTOELECTRONICS	ams OSRAM	Cree LED	Dialight	Kingbright	KYOCERA Display	Littelfuse - IXYS	ROHM Semiconductor	Toshiba	TT Electronics - OPTTEK	Vishay
	High-Voltage Isolators									
Infrared Emitters	◆			◆						◆
Infrared Sensors/Receivers	◆			◆						◆
LCD Modules										◆
LEDs - Indication	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
LEDs Illumination <1W	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
LEDs - Illumination >1W	◆	◆								
LEDs - UV	◆									◆
LED Displays				◆	◆					◆
LED Drivers							◆	◆		
LED Modules	◆			◆						
Light Pipes			◆							
OLED Displays										◆
Optical Sensing	◆						◆	◆	◆	◆
Optocouplers				◆	◆	◆	◆	◆	◆	◆
Panel Mount Indicators			◆		◆					◆
Solid State Relays					◆	◆	◆	◆	◆	◆
TFT Displays					◆					◆
TFT Displays				◆						◆

MEMORY	ROHM Semiconductor	TDK
	CompactFlash™, CFast™	
DRAM		◆
SD Memory Cards		◆
Serial EEPROM		◆
Solid State Drives (SSD)		◆

ADDITIONAL DISCRETE COMPONENTS	Littelfuse - IXYS	PANJIT	ROHM Semiconductor	Toshiba	TT Electronics - Semelab	Vishay
	Analog Switches	◆	◆	◆	◆	◆
LDO (Low Drop Out) Voltage Regulator		◆	◆	◆	◆	◆
Logic			◆	◆	◆	◆
Motor Control Drivers			◆	◆	◆	◆
RF Diodes			◆	◆	◆	◆
RF Transistors			◆	◆	◆	◆
Voltage Regulators		◆	◆	◆	◆	◆

POWER SEMICONDUCTORS	Bourns	Eaton	Littelfuse - IXYS	Littelfuse - Teccor	KYOCERA AVX	PANJIT	ROHM Semiconductor	Toshiba	TT Electronics - Semelab	Vishay	VPT Components	YAGEO
	DIODES											
Arrays	◆			◆		◆	◆	◆	◆	◆		
ESD		◆		◆		◆	◆	◆	◆	◆		
Schottky			◆		◆	◆	◆	◆	◆	◆	■	
Small Signal	◆			◆		◆	◆	◆	◆	◆	■	
TVS	◆	◆		◆		◆	◆	◆	◆	◆		◆
Silicon Carbide (SiC)	◆		◆	◆		◆	◆	◆	◆	◆		
Zener	◆			◆		◆	◆	◆	◆	◆	■	
RECTIFIERS												
Bridge	◆		◆	◆		◆	◆	◆	◆	◆		
Rectifiers	◆		◆	◆		◆	◆	◆	◆	◆		
Schottky	◆		◆	◆		◆	◆	◆	◆	◆	■	
THYRISTORS												
Protection	◆		◆							◆		
Switching (SCRs, Triacs)			◆	◆						◆	■	
TRANSISTORS												
Bipolar						◆	◆	◆	◆	◆	■	
Small Signal						◆	◆	◆	◆	◆	■	
IGBTs												
Discrete	◆		◆			◆	◆	◆	◆	◆		
Modules			◆					◆	◆			
MOSFETS												
Gallium Nitride (GaN)							◆					
High Voltage			◆			◆	◆	◆	◆	◆		
Low Voltage			◆			◆	◆	◆	◆	◆		◆
Modules			◆			◆	◆	◆	◆	◆		
Silicon Carbide (SiC)			◆			◆	◆	◆	◆	◆		

ANTENNAS			Abrakon	Amphenol	Spectrum Control	KYOCERA AVX	Murata	Pulse/YAGEO	TAIYO YUDEN	TDK	TE Connectivity
Application	Type	Frequency (MHz)									
Cellular	Chip*	698-960	◆			◆		◆	◆	◆	◆
		1710-2690	◆			◆		◆	◆	◆	◆
		2500-2700	◆			◆		◆	◆	◆	◆
		PentaBand	◆			◆		◆	◆	◆	◆
		Octaband	◆			◆		◆	◆	◆	◆
Cellular	FPC/PCB	698-960	◆	◆		◆		◆	◆	◆	◆
		1710-2690	◆	◆		◆		◆	◆	◆	◆
		2500-2700	◆	◆		◆		◆	◆	◆	◆
		PentaBand	◆	◆		◆		◆	◆	◆	◆
Cellular	External	698-960	◆	◆		◆		◆	◆	◆	◆
		1710-2690	◆	◆		◆		◆	◆	◆	◆
		2500-2700	◆	◆		◆		◆	◆	◆	◆
		PentaBand	◆	◆		◆		◆	◆	◆	◆
Cellular	Outdoor	698-960	◆	◆		◆		◆	◆	◆	◆
		1710-2690	◆	◆		◆		◆	◆	◆	◆
		2500-2700	◆	◆		◆		◆	◆	◆	◆
		PentaBand	◆	◆		◆		◆	◆	◆	◆
Cellular	Vehicular	698-960	◆	◆		◆		◆	◆	◆	◆
		1710-2690	◆	◆		◆		◆	◆	◆	◆
		2500-2700	◆	◆		◆		◆	◆	◆	◆
		PentaBand	◆	◆		◆		◆	◆	◆	◆
5G	Multiple Types	698-960	◆	◆		◆		◆	◆	◆	◆
		1710-2690	◆	◆		◆		◆	◆	◆	◆
		2500-2700	◆	◆		◆		◆	◆	◆	◆
		PentaBand	◆	◆		◆		◆	◆	◆	◆

ANTENNAS			Abrakon	Amphenol	Spectrum Control	KYOCERA AVX	Murata	Pulse/YAGEO	TDK	TE Connectivity	
Application	Type	Frequency (MHz)									
GPS	Chip*	1575	◆			◆		◆	◆	◆	
		1500-1600	◆			◆		◆	◆	◆	
		1227.6/1176 (L2/L5)	◆			◆		◆	◆	◆	
		1227	◆			◆		◆	◆	◆	
		1575	◆			◆		◆	◆	◆	
		1575/1598-1606	◆	◆		◆		◆	◆	◆	
		1592 Inmarsat			◆		◆		◆	◆	
		1615 Globalstar			◆		◆		◆	◆	
		1621 Iridium	◆		◆		◆		◆	◆	
		2338 SDARS	◆		◆		◆		◆	◆	
		1227.6/1176 (L2/L5)	◆			◆		◆	◆	◆	
		1176	◆			◆		◆	◆	◆	
		558-1610	◆	◆		◆		◆	◆	◆	
		1575/1592-1610	◆	◆		◆		◆	◆	◆	
Combo	GPS + Wi-Fi	1575	◆	◆		◆		◆	◆	◆	
		1575/2400	◆	◆		◆		◆	◆	◆	
		GPS + Dual Wi-Fi	1575/1602, 2400/5000	◆	◆		◆		◆	◆	◆
		Ext Active Cellular + GPS	Multiple	◆	◆		◆		◆	◆	◆
RFID	RFID Tag	Multiple	◆	◆		◆		◆	◆	◆	
		External Cellular + GPS	Multiple	◆	◆		◆		◆	◆	
		13.56	◆			◆		◆	◆	◆	
		865-928	◆			◆		◆	◆	◆	
ISM	Chip*	865-928	◆			◆		◆	◆	◆	
		865-928	◆			◆		◆	◆	◆	
		868, 915	◆			◆		◆	◆	◆	
		169	◆			◆		◆	◆	◆	
		315	◆			◆		◆	◆	◆	
		433	◆			◆		◆	◆	◆	
		868	◆			◆		◆	◆	◆	
		915	◆			◆		◆	◆	◆	
		433	◆			◆		◆	◆	◆	
		868	◆			◆		◆	◆	◆	
		915	◆			◆		◆	◆	◆	
		433	◆			◆		◆	◆	◆	
		868	◆			◆		◆	◆	◆	
		915	◆			◆		◆	◆	◆	
Wi-Fi/ Bluetooth/ BLE/ZigBee	Chip*	868	◆			◆		◆	◆	◆	
		868/900	◆			◆		◆	◆	◆	
		915	◆			◆		◆	◆	◆	
		2400	◆			◆		◆	◆	◆	
		5000	◆			◆		◆	◆	◆	
		Dual-Band Wi-Fi	◆			◆		◆	◆	◆	
		Tri-Band Wi-Fi (2400/5000/6000)	◆			◆		◆	◆	◆	
		2400	◆			◆		◆	◆	◆	
		5000	◆			◆		◆	◆	◆	
		Dual-Band Wi-Fi	◆			◆		◆	◆	◆	
		Tri-Band Wi-Fi (2400/5000/6000)	◆			◆		◆	◆	◆	
		2400	◆			◆		◆	◆	◆	
		5000	◆			◆		◆	◆	◆	
		Dual-Band Wi-Fi	◆			◆		◆	◆	◆	
Tri-Band Wi-Fi (2400/5000/6000)	◆			◆		◆	◆	◆			
Wireless Charge Coil	External	2400	◆			◆		◆	◆	◆	
		5000	◆			◆		◆	◆	◆	
		Dual-Band Wi-Fi	◆			◆		◆	◆	◆	
		Tri-Band Wi-Fi (2400/5000/6000)	◆			◆		◆	◆	◆	
Wireless Charge Coil	Tx	2400	◆			◆		◆	◆	◆	
		5000	◆			◆		◆	◆	◆	
Wireless Charge Coil	Rx	Dual-Band Wi-Fi	◆			◆		◆	◆	◆	
		Tri-Band Wi-Fi (2400/5000/6000)	◆			◆		◆	◆	◆	

◆ Lead & Lead-free compliant parts available. ◆ Lead-free only parts available. ■ MIL Spec Discretes (DSCC) *SMD/MT

*SMD/MT





The IP&E Specialist

Why Buy from the Specialist in Electronic Component Distribution?

Founded in 1971, TTI has steadily grown to become the world's leading interconnect, passive, electromechanical and discrete component distributor in the industry.

The company was founded on the premise that passive component purchasing could be made more efficient by offering product specialization, customer-driven service, and proprietary supply chain solutions – and do it all with secure 24/7 access via tti.com.



Knowledgeable Product Experts

Specialization allows TTI product managers to provide much better product insight to support your manufacturing from design through production. TTI Specialists' commitment to our customers is key to our continued success.

Broader and Deeper Inventories

TTI maintains extensive, available-to-sell inventory, stocking more than 850,000 part numbers globally – that's more connector, passive, electromechanical and discrete inventory available than from any other source.

TTI Supply Chain Solutions

TTI Supply Chain Specialists can analyze and make optimization recommendations throughout your entire production process, from long-lead-time components to receiving and warehousing to the production floor and shipping. By maximizing efficiencies while balancing security, availability and up-time, TTI can help lower your total cost of ownership, improve efficiencies and streamline your entire supply logistics.

QUALITY AND RELIABILITY

TTI is the first distributor to have all global warehouse locations ISO registered and currently are certified to ISO 9001 with AS9100 and ISO 14001 in North America, ISO 9001, EN 9100, ISO 14001 and EN 9120 in TTI Europe and ISO 9001 in TTI Asia.

Year after year, customers rate our inventory availability, on-time delivery and accuracy among the very best in the industry – call your local TTI Specialists at 1.800.CALL.TTI and discover why.



Get a digital copy of the latest TTI Commercial Line Card at tti.com.



11/25 5000DP