

/ LINECARD

AVNET[®] SILICA



SUPPLIER & TECHNOLOGY PORTFOLIO

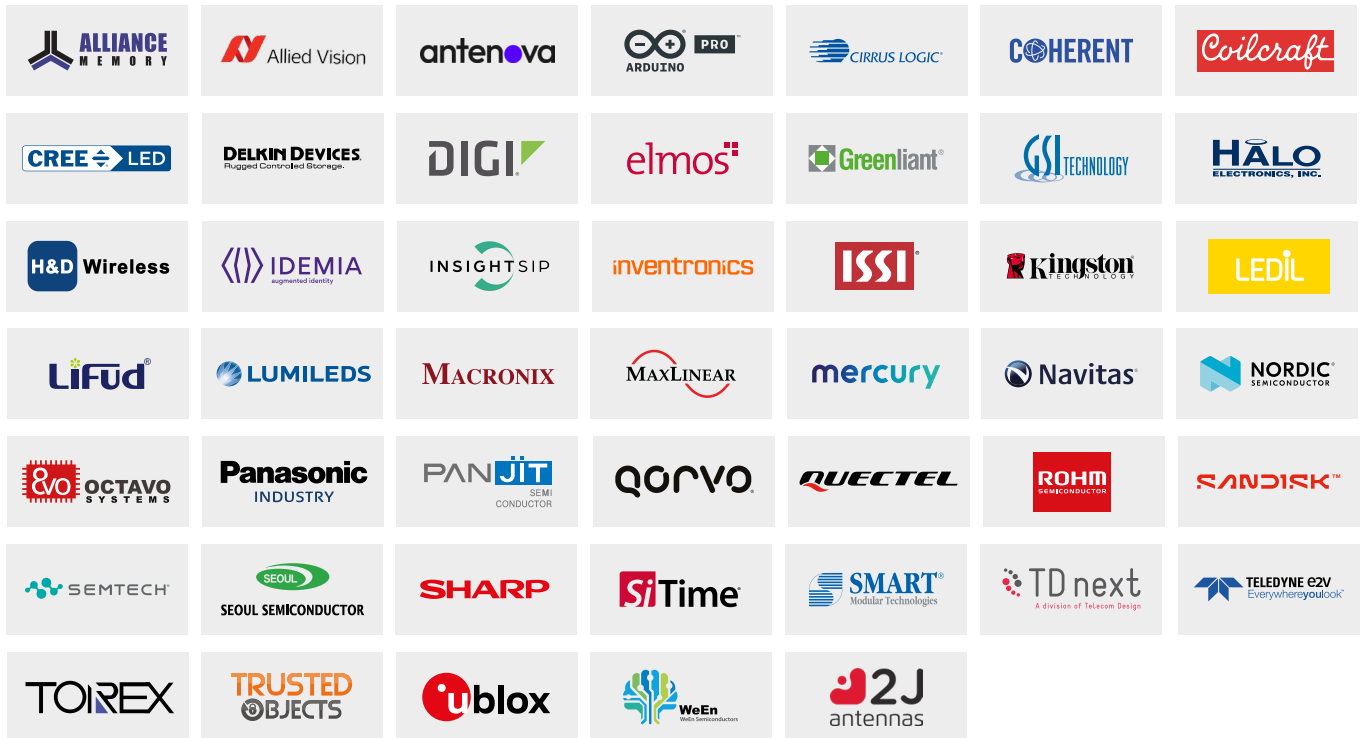


/ CORE SUPPLIERS

PARTNERING FOR SCALE WITH DEDICATED RESOURCES AND ENHANCED TECHNICAL SUPPORT



COMPLEMENTARY FRANCHISES



Avnet ASIC Solutions is your one-stop-shop for ASIC Design Services and Turnkey manufacturing services, operating for over 30 years with 350 successful completed projects. We can step in with a very skilled design team and offer you flexible business models.

We offer a complete range of ASIC services, from specification to mass production, with robust design practices and smooth ramp path to mass production.

Avnet ASIC Solutions has strong established relationships with the main foundries like Samsung, TSMC, Global Foundry, ST, Xfab and SocioNext. We choose the technology that is most suited for a particular application and your specific needs and we take charge to enable you to work with a single point of contact only: Avnet ASIC Solutions. Our proven technology nodes expertise get down to advanced EUV 7nm for Digital, Analog or Mix Signal designs.

The ASIC focus application areas are: Automotive, Industrial, Artificial Intelligent, Consumer, Internet of Things, Bio-Medical, Communication, Crypto Currency and many more.

END OF LIFE SOLUTIONS:

The current and upcoming market changes bring more and more mature technology to an End of Life Status. The needed re-designs can often not be implemented in time with all re-design and re-qualification needs.

Avnet ASIC Solutions offers you to develop pin compatible solutions which avoid system re-design and re-qualification. Our replacement capabilities are Analog, Digital, Mix Signal as well as old ASIC (standard cell and gate array) and FPGAs with the capability to offer 5V and 5V/3.3V core voltage.

Visit avnet-asic.com for more information or contact us at asic-solutions@avnet.eu.

OUR SERVICE FOR YOU:

- Logic Design
- Verification
- Emulation
- Synthesis
- Backend (Chip Layout)
- Design for Test
- Physical Verifications
- Package Development
- Production Test Program
- Production Test H/W Development
- Mass Production Logistics Management

/ MCUS | MPUS

MCUs | MPUS

	MCU	MCU Wireless	MPU	x86
AMD			•	•
Digi	•	•	•	
ISSI	•			
Marvell	•		•	
Microchip	•	•	•	
Nordic	•	•		
NXP	•	•	•	
Octavo Systems			•	
onsemi	•	•		
Renesas Electronics	•	•	•	
ROHM Semiconductor	•			
STMicroelectronics	•	•	•	
Teledyne e2v	•	•	•	

OTHER

	8 Bits Core	16 Bits Core	32 Bits Core	RISC-V
AMD	MicroBlaze, ARC, FPGA Soft Core			
ISSI	8051			
Microchip	AVR, PIC		AVR, MIPS	•
NXP	HC08, HCS08, LPC9x, 8051		ColdFire, ColdFire+, Power Architecture	•
Renesas Electronics	proprietary	RL78	"RX100/200/600/700 V850, RH850"	
ROHM Semiconductor	8051			
STMicroelectronics	STM8			
Teledyne e2v			ColdFire, ColdFire+, Power Architecture	



ARM®

	Arm9	ARM Cortex A5	ARM Cortex A7	ARM Cortex A8	ARM Cortex A9	ARM Cortex A15	ARM Cortex A35	ARM Cortex A53	ARM Cortex A55	ARM Cortex A57	ARM Cortex A72	ARMv7-A Compatible	ARM Cortex R4	ARM Cortex R5	ARM Cortex M0	ARM Cortex M0+	ARM Cortex-M23	ARM Cortex M3	ARM Cortex-M33	ARM Cortex M4	ARM Cortex M7
AMD					•			•						•				•			
Digi																					
Marvell					•			•		•	•										
Microchip	•	•														•	•			•	•
Nordic															•				•	•	
NXP	•	•	•	•	•		•	•	•	•	•				•	•		•	•	•	•
Octavo Systems			•	•				•						•							
Renesas Electronics			•		•	•		•	•	•			•			•	•	•	•	•	•
STMicroelectronics			•				•								•	•		•	•	•	•
Teledyne e2v							•			•											



/ ANALOG

	Signal Chain										Power Management										(Wired Connectivity) Interface																		
	Switches and Muxes	Op Amps & Comparators	Current Sense Amplifiers	Digital Pots	Data Converters (ADC - DAC)	Analog Signal Conditioners	Energy measurement AFE	Audio/Video Processing	Programmable Mi-red Signal	Voltage References	AC/DC converters/controllers	DC/DC converters/controllers	DC/DC Power Modules	Linear regulators	Gate Drivers	Motor and solenoid drivers	Power Over Ethernet	Battery management ICs	Power/Load Switches	LED and lighting drivers	Supervisors/Reset ICs/voltage detectors	Hot-swap Power Management	Wireless Chargers	USB power	PMICs	RS-485/RS-232	CAN/LIN	TIS - Single Pair Ethernet	USB data	SmartCard	IO-Link	PowerLine modems	IO E-panders	Level Translators	Signal equalizers/conditioners/protection	Digital Isolators	Other interfaces		
AMD					•	•																																	
Cirrus Logic				•	•		•	•																															
Diodes Incorporated	•	•	•						•	•	•		•	•	•		•	•	•	•			•		•														•
Elmos						•						•	•		•					•							•												•
Lumissil (ISSI)		•									•					•				•							•							•	•				
Maxlinear										•	•	•	•							•	•			•	•	•	•		•										•
Microchip	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Monolithic Power Systems (MPS)	•	•	•				•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•														•
Navitas															•																								
Nexperia	•													•	•						•																•	•	•
NXP	•					•		•		•	•		•	•	•		•	•	•	•			•	•	•		•			•									•
onsemi	•	•	•	•	•	•			•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Panjit											•	•																											
Qorvo	•	•					•				•				•				•	•					•	•													•
Renesas Electronics	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
ROHM Semiconductor	•	•			•			•		•	•		•	•	•		•	•	•	•	•	•	•	•	•		•									•			•
Semtech		•									•		•				•	•	•																				•
STMicroelectronics	•	•	•		•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Teledyne - e2v	•				•																																		
Torex											•	•	•							•	•	•	•																



/ SENSORS

	Environment									Motion					HMI & Others				
	Temperature	Light / Proximity	Pressure	Humidity	Gas / Smoke	Ultrasonic	ToF ranging / LIDAR	TMOS / Thermal Imaging	Accelerometer	Gyroscope	Compass	Hall / Magnetic	Inductive	Current	Touch Sense I/F	Image	PIR controllers	3D sensing	Biosensing
Allied Vision																•			
Coilcraft														•					
Diodes Incorporated	•										•						•		
Elmos		•	•			•											•	•	
Microchip	•				•							•			•			•	
Monolithic Power Systems (MPS)											•			•					
NXP	•		•					•		•	•				•				•
onsemi	•	•	•			•	•					•			•			•	•
Renesas	•	•					•					•	•	•					•
Rohm	•	•	•					•		•	•		•	•		•			•
Semtech															•				
Sharp		•		•												•			
ST Microelectronics	•	•	•				•	•	•	•				•	•				•

*: signal conditioning only



/ WIRELESS

	Short Range										Cellular					Antenna		Wireless Devices					
	NFC/RFID	Sub 1GHZ	Zigbee	Thread	Proprietary 2.4 GHz	Bluetooth	Lora	WiFi	UWB	DECT	V2X	2G / 3G	LTE MTC	LTE & LTE Adv.	5G	GNSS	Satellite	Wireless SOM	internal	external	Modem	Gateway	Router
2J Antenna																			X	X			
Antenova																			X	X			
Azurewave			M	M		M		M										X					
Digi International		M	M		M	M						M						X				X	X
Insight SIP		M	M	M	M	M	M		M										M				
H&D Wireless						M		M															
Max Linear								C							C								
Microchip		CM	CM		CM	CM	CM	CM															
MiroMico		M					M																X
Nordic	C		C	C		C		C		M		M											
NXP	C	C	C	C	C	C		C	C		C												
Panasonic			M	M	M	M		M															
Gorvo			C	C	C	C		FEM	CM		FEM	FEM	FEM	FEM	FEM								
Quectel		M	M	M	M	M	M				M	M	M	M	M	M	M	X	X	X			X
Raytac			M	M		M		M															
Renesas Electronics	C	C		C	C	CM	CM	CM		CM		CM	CM	CM	CM	CM							
Semtech		C			C		CM																
STMicroelectronics	C	CM	CM	CM	CM	CM	CM	M								CM							
Teltonika																					X	X	X
U-blox			M	M		M		M								CM							

C = Chip; M = Modules
 FEM = Front End Module
 X = associated components



	Beamforming	Connectivity	DU Acceleration	Filters	Power	RF	Storage	Timing
II-VI Coherent		•						
AMD	•		•			•		
Digi		•						
Ericsson								•
Marvell		•	•				•	
Max Linear		•				•		
Microchip				•	•	•		•
Micron							•	
NXP					•	•		
Qualcomm-RF360				•				
Quectel		•						
Renesas Electronics	•				•	•		•
SiTime								•
STMicroelectronics					•			
Torex					•			
Ween					•			



- **Wireless, 5G, Datacom, Security, ARM:**
 - Wireless: we do have the RSL1x family for BLE
 - Datacom: we do have 10Mb Ethernet, Single Wire Ethernet.

	10/100 Ethernet	1G Ethernet	2.5G Ethernet	10G Ethernet	25G Ethernet	40/50G	100G Ethernet	Optics	Timing	Signal Integrity	SAS SATA	Industrial Ethernet	PCIe	Others
II-VI Coherent								•						
Diodes									•	•			•	
Halo														•
Marvell	•	•	•	•	•	•	•			•	•	•	•	
Microchip	•	•	•	•	•	•	•	•	•	•	•	•	•	
Nexperia									•	•				
NXP	•	•	•	•	•	•	•		•	•	•		•	
onsemi	•								•	•			•	•
Renesas Electronics	•	•							•			•	•	
SiTime									•					
STMicroelectronics	•												•	



PROGRAMMABLE & SYSTEM-ON-CHIP (SoC)

	Technology (Flash/SRAM)	Low Power Capabilities	Low-density FPGA (from 0 to 150K LC)	Mid-Density FPGA (from 0 to 500k LC)	Hi-Density FPGA (from 0 to 2M LC)	Ultra-high density FPGA (from 0 to 5.5M LC)	Defense-Grade FPGA	Space-Grade FPGA	Automotive-Grade FPGA	DSP	Multi Gb/s Serial I/O	10M/100M/1G Ethernet	100G Ethernet	Interlaken	PCIe	ARM Cortex A9 processor (up to)	ARM Cortex A53 processor (up to)	ARM Cortex R5 controller (up to)	ARM Cortex M3 controller (up to)	RISC-V	GPU	H264/H265 Video Codec	14bit RF-DAC w/up to 10GSPS DUC	14bit RF-ADC w/up to 5GSPS DDC	RF input Max Freq. (GHz)	SD-FEC	Decimation/Interpolation	
AMD	Virtex-5 QV	65	•							•	•	soft																
	Spartan 6	45	•	•			•		•	•	•	soft			Gen1x1													
	Spartan 7	28	•	•					•	•	•	soft							•	•								
	Artix 7	28	•	•	•		•		•	•	•	soft			Gen2x4				•	•								
	Kintex 7	28		•	•		•		•	•	•	soft			Gen2x8				•	•								
	Virtex 7	28			•	•	•			•	•	soft			Gen3x8				•	•								
	Kintex Ultrascale	20			•	•	•			•	•	soft	•	150G	Gen3x8				•	•								
	Virtex Ultrascale	20			•	•	•			•	•	soft	•	150G	Gen3x8				•	•								
	Kintex Ultrascale +	16			•	•	•			•	•	soft	•	150G	Gen3x16/ Gen4x8				•	•								
	Virtex Ultrascale +	16			•	•	•			•	•	soft	•	150G	Gen3x16/ Gen4x8				•	•								
	Zynq 7000/S	28	•	•	•		•		•	•	•	•			Gen2x4/ Gen2x8	2x			soft	soft								
	Zynq Ultrascale +	16	•	•	•	•	•		•	•	•	•	•	150G	Gen2x4/ Gen3x16/ Gen4x8		4x	2x	soft	soft	Mali 400MP2	•						
	RFSoc	16			•	•	•			•	•	•	•	150G	Gen2x4/ Gen3x16/ Gen4x8		4x	2x	soft	soft				up to 16	up to 16	up to 6GHz	up to 8	up to 40x
	ProASIC3	130		•				•	•	•																		
IGLOO	130	•	•																									
Microchip	SmartFusion 2	65	•	•			•		•	•	(hard MAC) / 10G			Gen2x4 (EP)				1x										
	IGLOO2	65	•	•			•	•	•	•	(soft IP) / 10G			Gen2x4 (EP)						soft								
	PolarFire FPGA	28	•		•				•	•	(soft IP) / 10G	6.375G, 12.7G		Gen2x4 (RC/EP)						soft								
	SX-A	Antifuse 0.22µ		•			•	•																				
	Axcelerator	Antifuse 0.15µ		•			•	•																				
Octavo Systems	PolarFire SOC Family	28	•	•		•			•	•	(hard MAC) / 1G (soft IP) / 10G	6.375G, 12.7G		Gen2x4 (RC/EP)						5x								
		SRAM	•						•							•	•	•										



/ LIGHTING

LEDs

	Low Power	Mid Power	High Power	COBs	Modules	Light Engines	Display/signage
CREE	•	•	•	•			•
Lumileds	•	•	•	•	•		•
Seoul Semiconductor	•	•	•	•	•	•	

OPTICS

	Low Power	Mid Power	High Power		COBs	Modules
Gaggione		•	•	•	•	•
LEDiL	•	•	•	•	•	•

HOLDERS

Bender+Wirth					•	
LEDiL					•	

POWER

	Power	Topology	Indoor	Outdoor	Dimming Options	Programmable	Wireless
Delta Electronics	15-1500 W	CV, CC, CP	•	••	Analog, PWM, DALI2	Wired, NFC	•
Inventronics	9-1200 W	CV, CC, CP	•	••	Analog, PWM, DALI2	Wired, NFC	
Lifud	1-250 W	CV, CC, CP	••	•	Analog, PWM, DALI2	Switches, Wired	
Moons	12 - 320 W	CV, CC, CP	•	••	Analog, PWM, DALI2	Wired, NFC	•

THERMAL MANAGEMENT

	Mid Power	High Power		COBs	High Voltage
	0,3 - 0,9 W	1 - 4 W	4 - 10 W		
Mechatronix		•	•	•	•

LED DRIVERS

Diodes	Elmos	Lumissil
NXP	Onsemi	STMicroelectronics

LEDs



Optics



COB Holders



Power



Thermal Management



LED Drivers



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