

Family	Market / Application Focus	Advanced Features / Advantages	XGATE Coprocessor	Speed	Flash	ROM Available	RAM	CAN	SCI	SPI	IIC	PWM	EEPROM	ADC	Timer	Package Options
Body																
S12XE	High-end body, advanced features, 32 bit performance with 16 bit efficiency	MPU, ECC, EEPROM, FMPLL, enhanced ADC	✓	50MHz	128KB-1MB		12KB-64KB	2-5	2-8	2-3	1-2	8 Ch	2KB-4KB	8-32 Ch 12 bit	8 Ch 16 bit	80 QFP, 112 LQFP, 144 LQFP, 208 MAPGA
S12XS	General body, reduced feature set, high-performance for cost- sensitive applications	ECC, FMPLL, enhanced ADC		40MHz	64KB-256KB	✓	4KB-12KB	1	2	1		8 Ch		8-16 Ch 12 bit	8 Ch 16 bit	64 LQFP, 80 QFP, 112 LQFP
S12C	Low Cost CAN nodes/ LIN Master, powertrain watchdog	Small Footprint		16-25 MHz	32KB-128KB	✓	2KB-4KB	1	1	1		6 Ch		8 Ch 10 bit	8 Ch 16 bit	48 LQFP, 52 LQFP, 80 QFP
S12Q	Reduced featureset extension of S12C family	Small Footprint		8-16MHz	32KB-128KB	✓	1KB-4KB	1	1	1		Up to 4 Ch		8 Ch 10 bit	6 Ch 16 bit	48 LQFP, 52 LQFP
S12R	ROM alternative for high-volume, low cost applications	ROM Option		25MHz	ROM Only	✓	8KB	1-2	2	1-2	1	8 Ch		32 Ch 10 bit	8 Ch 16 bit	80 QFP, 112 LQFP
FlexRay																
S12XF	Chassis, embedded FlexRay controller for satellite nodes	FlexRay Controller, ECC, EEPROM, FMPLL, enhanced ADC	✓	50MHz	128KB-512KB Flash		16KB-32KB	1	2	2		6 Ch	2KB-4KB	16 Ch 12 bit	8 Ch 16 bit	64 LQFP, 112 LQFP
Instrument Cluster																
S12XHZ	Advanced Instrument cluster	LCD Controller, 6 ch motor control modules with Stepper Stall Detect	✓	40MHz	256KB-512KB Flash, ROM Avl		16KB-32KB	2	2	1	2	Up to 8 Ch	4KB	16 Ch 10 bit		112 LQFP, 144 LQFP
S12HZ	Basic Instrument cluster	LCD Controller, 6 ch motor control modules with Stepper Stall Detect		25MHz	32KB-256KB Flash, ROM Avl		2KB-12KB	0-2	1-2	0-1	0-1	Up to 6 Ch	0KB-4KB	7-16 10 bit	4-8 Ch 8 bit	80 QFP, 112 LQFP