

Simulator Debug Features by Device

Information taken from MPLAB X IDE device database files.

Table Headings: See a list of heading descriptions below the table.

Table Cells: To sort the data, use the CSV file (SimDebugFeatures.csv).

Color Legend: *Green cells:* supported; *Gray cells:* no support.

Text Legend: *Yes or Value:* supported; *No:* no support; *N/A:* no information in database.

Device	Prog/Data BPs	Data BPAccess	Tuples (ANDed BPs)	Sequenced BPs	Range BPs	Table R/W BPs	PassCounter	Clock Switch Break	Sleep Wake Break	Stack Over/Under Break	WDT Timeout Break	Stopwatch	Trace	Analyzer
AT90CAN128	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AT90CAN32	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AT90CAN64	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AT90PWM1	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AT90PWM161	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AT90PWM216	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AT90PWM2B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AT90PWM316	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AT90PWM3B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AT90PWM81	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AT90USB1286	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AT90USB1287	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AT90USB162	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AT90USB646	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AT90USB647	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AT90USB82	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATA5272	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATA5505	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATA5700M322	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATA5702M322	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATA5781	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATA5782	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATA5783	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATA5787	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATA5790	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATA5790N	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATA5791	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATA5795	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATA5831	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATA5832	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATA5833	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATA5835	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATA6285	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATA6286	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATA6612C	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes

Device	Prog/Data BPs	Data BPAccess	Tuples (ANDed BPs)	Sequenced BPs	Range BPs	Table R/W BPs	PassCounter	Clock Switch Break	Sleep Wake Break	Stack Over/Under Break	WDT Timeout Break	Stopwatch	Trace	Analyzer
ATA6613C	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATA6614Q	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATA6616C	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATA6617C	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATA664251	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATA8210	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATA8215	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATA8510	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATA8515	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATSAMC20E15A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC20E16A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC20E17A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC20E18A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC20G15A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC20G16A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC20G17A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC20G18A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC20J15A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC20J16A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC20J17A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC20J18A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC20J18AU	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC20N17A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC20N18A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC21E15A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC21E16A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC21E17A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC21E18A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC21G15A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC21G16A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC21G17A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC21G18A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC21J15A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC21J16A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC21J17A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC21J18A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC21N17A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMC21N18A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD20E14	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD20E14B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD20E15	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD20E15B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD20E16	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD20E16B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD20E17	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD20E18	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes

Device	Prog/Data BPs	Data BPAccess	Tuples (ANDed BPs)	Sequenced BPs	Range BPs	Table R/W BPs	PassCounter	Clock Switch Break	Sleep Wake Break	Stack Over/Under Break	WDT Timeout Break	Stopwatch	Trace	Analyzer
ATSAMD20G14	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD20G14B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD20G15	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD20G15B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD20G16	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD20G16B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD20G17	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD20G18	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD20J14	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD20J14B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD20J15	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD20J15B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD20J16	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD20J16B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD20J17	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD20J18	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD21E15B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD21E15CU	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD21E15L	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD21E16B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD21E16CU	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD21E16L	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD21E17A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD21E17D	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD21E17L	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD21E18A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD21G15B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD21G16B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD21G16L	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD21G17A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD21G17D	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD21G17L	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD21G18A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD21J15B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD21J16B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD21J17A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD21J17D	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD21J18A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD51G18A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD51G19A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD51J18A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD51J19A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD51J20A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD51N19A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD51N20A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMD51P19A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes

Device	Prog/Data BPs	Data BPAccess	Tuples (ANDed BPs)	Sequenced BPs	Range BPs	Table R/W BPs	PassCounter	Clock Switch Break	Sleep Wake Break	Stack Over/Under Break	WDT Timeout Break	Stopwatch	Trace	Analyzer
ATSAMD51P20A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMDA1E14B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMDA1E15B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMDA1E16B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMDA1G14B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMDA1G15B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMDA1G16B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMDA1J14B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMDA1J15B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMDA1J16B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME51J18A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME51J19A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME51J20A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME51N19A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME51N20A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME53J18A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME53J19A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME53J20A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME53N19A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME53N20A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME54N19A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME54N20A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME54P19A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME54P20A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME70J19	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME70J19B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME70J20	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME70J20B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME70J21	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME70J21B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME70N19	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME70N19B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME70N20	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME70N20B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME70N21	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME70N21B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME70Q19	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME70Q19B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME70Q20	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME70Q20B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME70Q21	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAME70Q21B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMG51G18	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMG53G19	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMG54G19	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMG54J19	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes

Device	Prog/Data BPs	Data BPAccess	Tuples (ANDed BPs)	Sequenced BPs	Range BPs	Table R/W BPs	PassCounter	Clock Switch Break	Sleep Wake Break	Stack Over/Under Break	WDT Timeout Break	Stopwatch	Trace	Analyzer
ATSAMG55G19	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMG55J19	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML10D14A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML10D15A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML10D16A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML10E14A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML10E15A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML10E16A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML11D14A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML11D15A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML11D16A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML11E14A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML11E15A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML11E16A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML21E15B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML21E16B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML21E17B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML21E18B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML21G16B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML21G17B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML21G18B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML21J16B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML21J17B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML21J18B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML22G16A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML22G17A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML22G18A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML22J16A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML22J17A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML22J18A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML22N16A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML22N17A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAML22N18A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMS70J19	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMS70J19B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMS70J20	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMS70J20B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMS70J21	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMS70J21B	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No	Yes	Yes	Yes	Yes
ATSAMS70N19	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	No	No				

Device	Prog/Data BPs	Data BPAccess	Tuples (ANDed BPs)	Sequenced BPs	Range BPs	Table R/W BPs	PassCounter	Clock Switch Break	Sleep Wake Break	Stack Over/Under Break	WDT Timeout Break	Stopwatch	Trace	Analyzer
ATmega169P	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega169PA	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega16A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega16HVA	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega16HVB	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega16HVBrevB	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega16M1	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega16U2	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega16U4	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega2560	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega2561	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega2564RFR2	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega256RFR2	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega32	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega3208	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega3209	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega324A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega324P	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega324PA	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega324PB	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega325	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega3250	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega3250A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega3250P	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega3250PA	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega325A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega325P	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega325PA	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega328	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega328P	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega328PB	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega329	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega3290	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega3290A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega3290P	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega3290PA	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega329A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega329P	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega329PA	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega32A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega32C1	1000 Total	R/W/E												

Device	Prog/Data BPs	Data BPAccess	Tuples (ANDed BPs)	Sequenced BPs	Range BPs	Table R/W BPs	PassCounter	Clock Switch Break	Sleep Wake Break	Stack Over/Under Break	WDT Timeout Break	Stopwatch	Trace	Analyzer
ATmega406	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega48	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega4808	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega4809	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega48A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega48P	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega48PA	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega48PB	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega64	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega640	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega644	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega644A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega644P	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega644PA	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega644RFR2	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega645	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega6450	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega6450A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega6450P	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega645A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega645P	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega649	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega6490	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega6490A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega6490P	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega649A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega649P	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega64A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega64C1	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega64HVE2	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega64M1	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega64RFR2	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega8	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega808	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega809	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega8515	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega8535	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega88	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega88A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega88P	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATmega88PA	1000 Total	R/W/Either	1000</											

Device	Prog/Data BPs	Data BPAccess	Tuples (ANDed BPs)	Sequenced BPs	Range BPs	Table R/W BPs	PassCounter	Clock Switch Break	Sleep Wake Break	Stack Over/Under Break	WDT Timeout Break	Stopwatch	Trace	Analyzer
ATtiny102	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny104	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny11	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny12	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny13	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny13A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny15	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny1604	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny1606	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny1607	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny1614	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny1616	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny1617	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny1634	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny167	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny20	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny202	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny204	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny212	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny214	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny2313	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny2313A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny24	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny24A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny25	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny26	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny261	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny261A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny3216	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny3217	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny4	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny40	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny402	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny404	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny406	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny412	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny414	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny416	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny416auto	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny417	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny4313	1000 Total	R/W/Either	1000	1000/1000	N/A	No								

Device	Prog/Data BPs	Data BPAccess	Tuples (ANDed BPs)	Sequenced BPs	Range BPs	Table R/W BPs	PassCounter	Clock Switch Break	Sleep Wake Break	Stack Over/Under Break	WDT Timeout Break	Stopwatch	Trace	Analyzer
ATtiny461	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny461A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny48	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny5	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny804	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny806	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny807	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny814	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny816	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny817	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny828	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny84	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny841	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny84A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny85	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny861	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny861A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny87	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny88	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATtiny9	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega128A1	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega128A1U	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega128A3	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega128A3U	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega128A4U	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega128B1	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega128B3	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega128C3	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega128D3	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega128D4	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega16A4	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega16A4U	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega16C4	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega16D4	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega16E5	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega192A3	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega192A3U	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega192C3	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega192D3	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega256A3	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega256A3B</														

Device	Prog/Data BPs	Data BPAccess	Tuples (ANDed BPs)	Sequenced BPs	Range BPs	Table R/W BPs	PassCounter	Clock Switch Break	Sleep Wake Break	Stack Over/Under Break	WDT Timeout Break	Stopwatch	Trace	Analyzer
ATxmega32A4U	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega32C3	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega32C4	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega32D3	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega32D4	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega32E5	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega384C3	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega384D3	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega64A1	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega64A1U	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega64A3	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega64A3U	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega64A4U	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega64B1	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega64B3	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega64C3	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega64D3	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega64D4	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ATxmega8E5	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AVR28DA128	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AVR32DA128	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AVR48DA128	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AVR64DA128	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
MCV08A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
MCV14A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
MCV18A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
MCV18E	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
MCV20USB	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
MCV28A	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
MEC1503H_L1_3Y	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
MEC1515H_DO_NB	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
PIC10F200	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
PIC10F202	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
PIC10F204	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
PIC10F206	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
PIC10F220	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
PIC10F222	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
PIC10F320	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
PIC10F322	1000 Total	R/W/Either	1000	1000/1000	N/A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
PIC10LF320	1000 Total	R/W/Either	1000	1000/1000										

Simulator Debug Features Table - Heading Descriptions

Feature	Feature Description*
Device	Device has either yellow or green light support in MPLAB® X IDE.
Prog/Data BPs	Maximum number of Program and Data Memory breakpoints. X Total: X breakpoints are shared between program and data memory.
Data BP Access	Break on data fetch, data write or either data fetch or write.
Tuples (ANDed BPs)	Maximum number of Tuples (ANDed breakpoints). A tuple consists of one program memory breakpoint ANDed with one data memory breakpoint. Breakpoint 1 AND breakpoint 2 must occur at the same time before a program halt.
Sequenced BPs	Maximum number of sequences and sequenced breakpoints. X/Y: X is the maximum number of a breakpoint sequences. Y is the maximum number of breakpoints in the sequence. A breakpoint sequence is a list of breakpoints that execute but do not halt until the last breakpoint is executed.
Range BPs	Break on a range of program or data memory addresses.
Table R/W BPs	Break on a table read or write.
Pass Counter	Break after a specified number of passes occur, specified by a counter.
Clock Switch Break	Break on clock switching
Sleep Wake Break	Break on wake from Sleep
Stack Over/Under Break	Break on stack overflow/underflow
WDT Timeout Break	Break on Watchdog Timer timeout
Stopwatch	Use the stopwatch with breakpoints to time code execution. Stopwatch uses 1-2 breakpoint resources
Trace	Simulator Trace Simulation speed is reduced by up to 50% when using trace.
Analyzer	Simulator Logic Analyzer
* See simulator documentation (PDF or Help file) for details on debug features.	