









Synapse Module Comparison Chart

Model	RF100PD6	RF100PC6	RF200P81	RF200PD1	RF200PF1	RF266PC1	RF300PC1	RF300PD1
								
SKU	51750	51752	51765	51768	51778	51776	51772	51774
Range	3 mile LOS	2.5 mile LOS	1500 LOS	3 miles LOS	2.5 miles LOS	4000 LOS	1 mile LOS	3 miles LOS
Raw Bit Rate	250kbps	250kbps	2Mbps	2Mbps	2Mbps	2Mbps	150kbps	150kbps
Antenna	RP-SMA	Int "F"	Chip	RP-SMA	Int "F"	Chip	Chip	RP-SMA
Receive Sensitivity	-102dBm	-102dBm	-100dBm	-103dBm	-103dBm	-107dBm3	-99dBm	-99dBm
Transmit Power	18dBm	18dBm	3dBm	15dBm	15dBm	20dBm	20dBm	20dBm
Frequency	2.4GHz	2.4GHz	2.4GHz	2.4GHz	2.4GHz	2.4GHz	915MHz	915MHz
Footprint	RF100	RF100	RF100	RF100	RF100	XBee footprint	RF100-like	RF100-like
Controller	MC13191/ MC9S08GT60A	MC13191/ MC9S08GT60A	ATmega128RFA1	ATmega128RFA1	ATmega128RFA1	ATmega128RFA1	SiLabs Si1000	SiLabs Si1000
UARTs	2	2	2	2	2	2	1	1
Total I/O	19	19	20	20	20	15	15	15
PWM	1	1	6	6	6	4	-	-
A/D 10bit	8	8	7	7	7	4	12	12
Memory	60kB flash	60kB flash	128kB flash	128kB flash	128kB flash	128kB flash	192kB flash	192kB flash
User Memory	20kB	20kB	58.5kB	58.5kB	58.5kB	58kB	64kB	64kB
I2C	Pins 19, 20	Pins 19, 20	Pins 19, 20	Pins 19, 20	Pins 19, 20	-	Pins 2, 3	Pins 2, 3
SPI	Pins 14, 15, 16	Pins 14, 15, 16	Pins 14, 15, 16	Pins 14, 15, 16	Pins 14, 15, 16	Pins 18, 19, 20	Pins 6, 7, 8	Pins 6, 7, 8
JTAG	-	-	Pins 17, 18, 19, 20	Pins 17, 18, 19, 20	Pins 17, 18, 19, 20	-	-	-
Supply Voltage	2.7-3.4VDC	2.7-3.4VDC	1.8-3.6VDC	2.7-3.6VDC	2.7-3.6VDC	2.7-3.6VDC	2.7-3.6VDC	2.7-3.6VDC
Tx Current (typ)	115mA	115mA	22.5mA	80mA	80mA	130mA	85mA	85mA
Rx Current (typ)	60mA	60mA	20.5mA	20mA	20mA	25mA	18.5mA	18.5mA
Sleep Current	1.6µA	1.6µA	0.25µA	1.6µA	1.6µA	2.3µA	2µA	<16µA
Temperature	All rated -40° to +85°C							
Best Feature	- Best for sensors	- Best for sensors	- Best for battery	- Best data rate	- Best data rate	- Smallest size	- Best for indoor	- Best for indoor
Other Features	- Long distance - Lots of A/D - Keyboard interrupts - Low current sleep mode	- Lots of A/D - Keyboard interrupts - Low current sleep mode	- Lots of PWM - Lots of flash available - Lots of interrupts - Lowest voltage operation - Low current sleep mode - Lowest transmit power	- Long distance - Lots of PWM - Lots of flash available - Lots of interrupts - Low current sleep mode - Low transmit power	- Lots of PWM - Lots of flash available - Lots of interrupts - Low current sleep mode - Lowest transmit power	- Xbee form factor - Lots of PWM - Lots of flash available	- Lots of flash available - Lots of A/D	- Long distance - Lots of flash available - Lots of A/D