

# RFM Short Range Radios and RFICs



The RFM brand of Subsystem RF products consists of SAW-based Short-Range Radios and RFIC Short-Range Radios. These RF devices include second (2G) and third (3G) generation hybrid transmitter, receiver and transceiver radios based on RFM proprietary Virtual Wire™ Technology.

## VIRTUAL WIRE RADIO

RFM SAW-based Short-Range Radios are based on RFM Virtual Wire Technology that features ultra-low-power, proprietary amplifier-sequenced hybrid (ASH) radio architecture and offer the following features:

- Features:**
- Integrated RF IC with quartz SAW filtering and frequency control components in a single hybrid
  - High Data rates for data, control and digitized voice transmissions
  - Stable, sensitive receiver technology with excellent "channel capture" performance
  - Ultra Low current consumption for operation from small 3V batteries
  - Very small, low-profile package to make "watch size" applications practical
  - Rugged, self-shielding, metal-ceramic hybrid package
  - Wide operating temperature range for industrial and outdoor applications
  - Easy to optimize for a wide range of application requirements
  - Easy certification to stringent short-range radio regulatory requirements
  - No external RF filters, IF filters, resonators or crystals are required

## RF Modules

For quantities of 500 and up, call for quote.

MOUSER STOCK NO.	RFM Part No.	Description	Power Output	Operating Voltage	Operating Temperature	Price Each		
						1	100	250
719-DR3000	DR3000	Transceiver Module 916.500MHz	.75mW	2.7Vdc - 3.5Vdc	-40°C to +85°C	25.20	23.25	21.30
719-DR3100	DR3100	Transceiver Module 433.920MHz	1.2mW	2.7Vdc - 3.5Vdc	-40°C to +85°C	25.20	23.25	21.30
719-DR3101	DR3101	Transceiver Module 315.00MHz	1mW	2.7 - 3.5Vdc	-40°C to +85°C	25.00	23.08	20.00
719-DR3300	DR3300	Transceiver Module 916.50MHz	1mW	2.7 - 3.5Vdc	-40°C to +85°C	28.33	26.15	22.67
719-DR5000	DR5000	Receiver Module 916.50MHz	-	2.7Vdc - 3.5Vdc	-20°C to +65°C	25.00	23.08	20.00
719-DR5100	DR5100	Receiver Module 433.92MHz	1mW	2.7 - 3.5Vdc	-20°C to +65°C	25.00	23.08	20.00

## Transceivers

RFM's amplifier-sequenced hybrid (ASH) transceiver is specifically designed for short-range wireless data communication applications. The transceiver provides robust operation, very small size, low power consumption and low implementation cost. All critical RF functions are contained in the hybrid, simplifying and speeding design-in. The ASH transceiver can be readily configured to support a wide range of data rates and protocol requirements. The transceiver features excellent suppression of transmitter harmonics and virtually no RF emissions when receiving, making it easy to certify to short-range (unlicensed) radio regulations.

For quantities of 500 and up, call for quote.

MOUSER STOCK NO.	RFM Part No.	Description	Case	Frequency (MHz)	Operating Temperature	Price Each		
						1	100	250
719-TR1000	TR1000	ASH Transceiver Module 115.2kbps	SM-20H	916.5	-40°C to +85°C	13.57	12.67	11.99
719-TR1001	TR1001	ASH Transceiver Module 115.2kbps	SM-20H	868.35	-40°C to +85°C	13.57	12.67	11.99
719-TR1100	TR1100	ASH Transceiver Module 115.2kbps	SM-20H	916.5	-40°C to +85°C	11.00	9.76	9.31
719-TR3000	TR3000	ASH Transceiver Module 115.2kbps	SM-20L	433.92	-40°C to +85°C	13.57	12.67	11.99
719-TR3001	TR3001	ASH Transceiver Module 115.2kbps	SM-20L	315	-40°C to +85°C	13.57	12.67	11.99
719-TR3005	TR3005	ASH Transceiver Module 115.2kbps	SM-20H	403.5	-10°C to +55°C	13.86	12.74	11.99
719-TR7000	TR7000	ASH Transceiver Module 115.2kbps	SM3-20H	433.92	-40°C to +85°C	9.65	8.87	8.50
719-TR8000	TR8000	ASH Transceiver Module 115.2kbps	SM3-20H	916.5	-40°C to +85°C	9.24	8.53	7.81
719-TR8100	TR8100	ASH Transceiver Module 115.2kbps	SM3-20H	916.5	-40°C to +85°C	9.24	8.53	7.81

## Receivers

RFM's amplifier-sequenced hybrid (ASH) receivers are specifically designed for short-range wireless control and data communication applications. The receivers provide robust operation, very small size, low power consumption and low implementation cost. All critical RF functions are contained in the hybrid, simplifying and speeding design-in. The ASH receiver can be readily configured to support a wide range of data rates and protocol requirements. The receiver features virtually no RF emissions, making it easy to certify to short-range (unlicensed) radio regulations.

For quantities of 500 and up, call for quote.

MOUSER STOCK NO.	RFM Part No.	Description	Case	Frequency (MHz)	Operating Temperature	Price Each		
						1	100	250
719-RX5000	RX5000	ASH Receiver Module 115.2kbps	SM-20L	433.92	-40°C to +85°C	8.23	7.60	6.96
719-RX5002	RX5002	ASH Receiver Module 115.2kbps	SM-20L	418	-40°C to +85°C	7.73	6.85	6.54
719-RX5003	RX5003	ASH Receiver Module 115.2kbps	SM-20L	303.825	-40°C to +85°C	7.73	6.85	6.54
719-RX5500	RX5500	ASH Receiver Module 19.2kbps	SM-20L	433.92	-40°C to +85°C	7.90	7.29	6.67
719-RX5501	RX5501	ASH Receiver Module 19.2kbps	SM-20L	315	-40°C to +85°C	7.36	6.53	6.23
719-RX6000	RX6000	ASH Receiver Module 115.2kbps	SM3-20H	916.5	-40°C to +85°C	8.23	7.60	6.96
719-RX6001	RX6001	ASH Receiver Module 115.2kbps	SM-20H	868.35	-40°C to +85°C	9.00	8.17	7.65

## Transmitters

RFM's TX-series hybrid transmitters are specifically designed for short range wireless data communication applications. These transmitters provide robust operation, very small size, low power consumption and low implementation cost. All critical RF functions are contained in the hybrid, simplifying and speeding design-in. The transmitters can be readily configured to support a wide range of data rates and protocol requirements. TX-series transmitters feature excellent suppression of output harmonics and virtually no other RF emissions, making them easy to certify to short range (unlicensed) radio regulations.

For quantities of 500 and up, call for quote.

MOUSER STOCK NO.	RFM Part No.	Description	Case	Frequency (MHz)	Operating Temperature	Price Each		
						1	100	250
719-TX5000	TX5000	ASH Transceiver Module 115.2kbps	SM-20L	433.92	-40°C to +85°C	6.55	6.05	5.54
719-TX6000	TX6000	ASH Transceiver Module 115.2kbps	SM-20H	916.5	-40°C to +85°C	6.55	6.05	5.54

## Development Kits

For quantities of 500 and up, call for quote.

MOUSER STOCK NO.	RFM Part No.	Description	Frequency (MHz)	Price Each
719-DR1200-DK	DR1200-DK	2G Development Kit	916.5MHz	350.00
719-DR2000-DK	DR2000-DK	2G Development Kit	916.5MHz	450.00
719-DR7000-DK	DR7000-DK	3G Development Kit	433.92MHz	200.00
719-DR7001-DK	DR7001-DK	3G Development Kit	315MHz	200.00
719-DR7003-DK	DR7003-DK	3G Development Kit	303.828MHz	200.00
719-DR8000-DK	DR8000-DK	3G Development Kit	916.5MHz	200.00
719-DR8001-DK	DR8001-DK	3G Development Kit	868.35MHz	200.00
719-DR8100-DK	DR8100-DK	3G Development Kit	916.5MHz	200.00

## RFICs

RFM's RFIC Products include PLL based, single or multi-channel Transceiver, Transmitter and Receiver products, Evaluation boards and RF Design Assistant Software, servicing varied wireless applications in the market place and offer the following features:

- Features:**
- Integrated PLL, IF, Baseband Circuitry, thus minimizing external component count and simplifying and speeding design-ins
  - Support for Multiple Channels
  - Wide Frequency range
  - Wide operating supply voltage
  - Frequency Hopping Spread Spectrum capability
  - Low current consumption
  - Very few external components required
  - Small size plastic packages

For quantities of 500 and up, call for quote.

MOUSER STOCK NO.	RFM Part No.	Description	Frequency	Case	Price Each			
					1	10	50	100
<b>Transceivers</b>								
719-TRC104	TRC104	Multi-channel GFSK RFIC Transceiver	2.4GHz	24-pin QFN	2.07	2.00	1.94	1.88
719-TRC105	TRC105	Multi-channel FSK RFIC Transceiver	300-510 MHz	32-pin QFN-32	2.42	2.34	2.26	2.19

## Development Kits

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	RFM Part No.	Description	Frequency	Price Each
719-DR-TRC103-868-DK	DR-TRC103-868-DK	TRC103 Development Kit	863-870MHz	262.50
719-DR-TRC103-915-DK	DR-TRC103-915-DK	TRC103 Development Kit	902-928MHz	262.50
719-DR-TRC104-2400DK	DR-TRC104-2400DK	TRC104 Development Kit	2.4GHz	262.50
719-DR-TRC105-304-DK	DR-TRC105-304-DK	TRC105 Development Kit	303.325-307.300 MHz	280.00
719-DR-TRC105-315-DK	DR-TRC105-315-DK	TRC105 Development Kit	310.000-319.500 MHz	280.00
719-DR-TRC105-403-DK	DR-TRC105-403-DK	TRC105 Development Kit	402.000-407.300 MHz	280.00
719-DR-TRC105-434-DK	DR-TRC105-434-DK	TRC105 Development Kit	418.000-434.790 MHz	280.00

