RF MODULES PRODUCT SELECTION TOOL

FHSS Wireless Telemetry for Point-to-Point and Point-to-Multipoint Networks

RoHS Compliant

FCC / IC / ETSI Certified

Consider the seven key questions below matching them to the product selection tables to identify the part number for the module that is most suitable for your application. Then locate the part number in the catalog and select the developer kit part number. Order your developer kit today!

	1 FREQUENCY			2 MAX RF DATA RATE										2 RANGE										3 RF POWER					4 STANDARD				5 NETWORK			6 TECHNOLOGY			7 INTERFACE	
	434 MHz	900 MHz	2.4 GHz	4.8 kbps	9.6 kbps	172.8 kbps	250 kbps	460.8 kbps	500 kbps	1.23 Mbps	2 Mbps	3 Mbps	11 Mbps	Indoor 30 m	Indoor 100 m	Indoor >100 m	Outdoor 30 m	Outdoor 100 m	Outdoor 250 m	Outdoor 500 m	Outdoor 1,000 m	Outdoor 10,000 m	Outdoor >10,000 m	1 mW	10 mW	100 mW	250 mW	1 W	ZigBee	802.15.4	Proprietary	802.11	Mesh/S&F	Multipoint	Peer-to-Peer	Narrowband	Frequency Hopping	Direct Sequence	UART Only	I/O and UART
DM1810	✓	✓		✓			✓							✓	✓	✓	✓	✓	✓						✓						✓		✓			✓				✓
DNT900		✓							✓*					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓		✓	✓	✓		✓			✓
DNT2400			✓						✓*					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					✓		✓	✓	✓		✓			✓
LPR2430			✓				✓							✓	✓		✓	✓						✓					✓				✓	✓				✓		✓
LPR2430A			✓				✓							✓	✓		✓	✓						✓					✓				✓	✓				✓		✓
LPR2430ER			✓				✓							✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓			✓				✓	✓				✓		✓
LPR2430ERA			✓				✓							✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓			✓				✓	✓				✓		✓
WIT910		✓				✓								✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓			✓			✓			✓		✓	
WIT2410			✓					✓						✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓					✓			✓			✓		✓	
WIT2411			✓							✓				✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓					✓			✓			✓		✓	
WIT2450			✓					✓						✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓				✓			✓			✓		✓	
WSN802G			✓								✓		+	✓			✓	✓							✓							✓		✓				✓		✓
XDM2140			✓				✓							✓	✓	✓	✓	✓	✓					✓	✓					✓	✓	✓		✓			✓		✓	
ZMN2405			✓				✓							✓	✓		✓	✓						✓					✓				✓					✓		✓
ZMN2405HP			✓				✓							✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓			✓				✓					✓		✓
ZMN2430			✓				✓							✓	✓		✓	✓						✓					✓				✓					✓		✓
ZMN2430A			✓				✓							✓	✓		✓	✓						✓					✓				✓					✓		✓
ZMN2430HP			✓				✓							✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓			✓				✓					✓		✓
ZMN2430HPA			✓				✓							✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓			✓				✓					✓		✓

* Modules can be software configured for lower rates.
\+ Coming in Early 2010

1 Frequency: If the product application will be offered in many countries 2.4 GHz modules provide a single solution for all markets. If the product will be marketed in:

- N. or S. America choose 900 MHz or 2.4 GHz
- Europe or China choose 434 MHz or 2.4 GHz
- Japan or Korea choose 2.4 GHz
- Australia or New Zealand choose 434 MHz, 900 MHz, or 2.4 GHz

2 Data rate and range: Does the application require low, medium, or high data through-put? Over what indoor or outdoor distance is data to be transmitted?

3 RF Power: Is long battery life or transmission distance the primary importance? The lower the RF power - the longer the battery life. The longer the transmission range – the higher the RF power required to transmit over extended ranges. Also, is the application to be powered by AC mains or by battery? If battery-powered, then obtaining the lowest RF power is important.

4 Standards: If standards-compatible products or standards-based wireless communications is important for the product application then choose ZigBee, 802.15.4, or 802.11b/g. If lowest power is most important choose mesh. If highest resistance to interference is most important then choose FHSS mesh or proprietary FHSS.

5 Network Topology: If the application requires a decentralized network topology where if a node fails it will dynamically find and re-route the data (like the Internet), then choose mesh. Further, if in a mesh network topology the application requires devices to be mobile, then choose RFM proprietary mesh. Choose point-to-point or point-to-multi-point network topology if a centralized network topology bearing very low attendant overhead costs is most important.

6 Technology: If the product application primarily operates where:

- long-range and/or high data-rate transmission within adverse conditions (e.g., industrial), FHSS provides secure and highly reliable RF transmission that is resistant to interference
- high data-rate transmission, particularly for Ethernet LAN, 802.11b/g provides wireless communications for data rates of 11 Mb/s
- a balance between data rate and power consumption is important, 802.15.4 and ZigBee technology provide rapid synchronization, moderate interference robustness and a good data rate-to-power consumption ratio
- low power consumption is required to support battery operation in sensor networks or low traffic serial communications, the proprietary mesh modules are the best choice

7 Sensors / Serial Connections or UART / I/O Interface: Does the application need direct connection to sensors, or serial devices, or both?