SDR400 Series

Long distance, micro volume, low cost, 400/800 / 900MHz multi-band
High-speed Frequency Hopping Digital Radio(Module)

The SDR400 series of high-speed FM radio(modules) based on software radio (SDR) technology provide a small, reliable and reliable remote communication solution for low-cost, space-constrained applications. The same radio(module) can be set to select the work in the 400/900MHz or 800MHz band.

400 MHz Licensed

800/900 MHz ISM

Up to 2 Watts

Exended Temperature

Dual Serial Ports

Excellent Sensitivity

Weighs only 5 grams!

1.3"x1.05"x0.13"(TTL,3.3/3.6V)

SDR400 Enclosed
46x66x25mm, 120g（2W, 232/485, 9-30V）

SDR400 series of high-speed frequency hopping digital radio (module) with long-range, high-speed reliable, low latency and secure data communication advantages. Supports full duplex serial communication and diagnostic communication. SDR400 series of high-speed frequency hopping digital radio (module) has a very high noise suppression, jamming exclusion and flexible

frequency synthesis, digital modulation and matched filter detection technology.

SDR400 series of high-speed frequency hopping digital radio (module) super-class performance and technical indicators, excellent resistance to electromagnetic jamming and reliable communication capabilities and advanced encryption communication function, is the industry's leading super digital transmission products.

SDR400 Features

- Point-to-point, point-to-multipoint, TDMA, store forwarding, roaming
- The software can be set to select the 400 / 900MHz or 800MHz operating frequency band
- Air speed up to 345kbps (@ 900MHz)
- Ultra low noise and jamming suppression 4-level filtering
- Transmit power 2 W / 5 W / 25 W (adjustable)
- 32-bit CRC with retransmission, selectable forward error correction
- Independent diagnostic port - real-time remote diagnostics and wireless network control
- Low power consumption of sleep and perception modes
- Industrial temperature range
- Very small size
- Aviation, military grade connection plug package options
- Compatible with Microhard N920F
- Compatible with PCC, Trimble, Satel GNSS / RTK data link protocol

hp840/hp900
(26. 5x19x2. 75/34. 5x25. 5x6. 5mm, 2/12g)
(2Watts, CMOS/232, 3. 3-3. 6/7-30V, 2A)

SDR400M
(65x36x13mm, 25g)
(2Watts, 232/TTL/485/422, 5-25V/2A)

SDR400L Enclosed
(65x36x13/40x67x15mm, 25/57g)
(2Watts, TTL/USB/232/485/422, 5-25V/2A)

SDR400H Enclosed
(8. 3x4. 8x1. 7/5. 7x9. 8x4. 3cm, 50/228g)
(7Watts, 232/485/422, 10-16V/2A)

SDR400-10/25Watts Enclosed
(9.1x6x2.1/10.5x8.2x3.7/10.5x7.9x4.2cm,156/365g)
(5/15/25W,19.2-345kbps,232/485/422,9-16V/10.5-16V/3-6A)

SDR400-Multichannel(data、voice、GPS)
(11. 4x9. 8x4. 3/8. 7x5. 4x2. 2mm, 300/135g)
(19. 2-345kbps, Multichannel，232/485/422, 6-25V/2A)

Microhard N920 compatible   MDS EL805 compatible   Digi 9XTend compatible

SDR400 Series   Specifications

Frequency	410-480MHz/840-845MHz/902-928MHz
Spreading Method/ Modulation Scheme	Frequency Hopping GMSK,2GFSK,4GFSK,QPSK
Forward Error Correction	Hamming,BCH,Golay,Reed-Solomon,Viterbi
Error Detection	32 bits of CRC,ARQ
Encryption	Optional(see-AES option)
Range	100km
Serial Interface	3.3V CMOS,RS232/485(Selectble)
Serial Baud Rate	300bps to 230.4kbps
Operating Modes	Point-to-Point,Point-to-Multipoint, TDMA,Store&For-ward Repeater, Peer-to-Peer
Signals Interface	RSSI LEDs,Tx/Rx LEDs,Reset ,Config, Wake-up,RSmode,4 Digital Inputs/ Outputs,1Analog Input,1Analog Output
Remote Diagnostics	Battery Voltage,Temperature,RSSI, Packet Statistics
Rejection	Adjacent Channel @ 400 MHz:60 dB Alternate Channel @ 400 MHz:70 dB Adjacent Channel @ 900 MHz:57 dB Alternate Channel @ 900 MHz:65 dB
Core Voltage	3.3VDC is required for 1W 3.6VDC is required for 2W
Power Consumption (3.3V)	Sleep: <1mA(Future) Idle: 20mA Rx: 45mA to 98mA Tx Peak: 2A
Connectors	Antenna:UFL Data :80 Pin SMT
Environmental	-55℃ ~+85℃ 5~95% humidity,non-condensing
Weight	Approx. 5 grams
Dimensions	Approx. 1.05"x1.3"x.13" (26.5mm x 33mm x 3.5mm)
Approvals	FCC Part 15.247 Pending IC RSS210 Pending FCC Part 15.90 Pending IC RSS119 Pending CE Pending

Frequency 410 to 480MHz(Licensed Band)

Rate(kbps)	power	Sensitivity(dBm)	Bandwidth (kHz)	Regulatory
3.6	2W	-118	6.25	FCC/IC/CE
4.8	2W	-117	12.5	FCC/IC/CE
9.6	2W	-115	12.5	FCC/IC/CE
19.2	2W	-114	25	IC/CE

Frequency 410 to 480MHz(Frequency Hopping)

Rate(kbps)	power	Sensitivity(dBm)	Bandwidth (kHz)	Regulatory
56	2W**	-113	60	None*
115.2	2W**	-109	150	None*
172.8	2W**	-108	180	None*
230.4	2W**	-106	230	None*
276.4	2W**	-105	230	None*
345	2W**	-103	400	None*

Frequency 840-845/902-928MHz(Frequency Hopping)

Rate(kbps)	power	Sensitivity(dBm)	Bandwidth (kHz)	Regulatory
19.2	1W	-116	25	FCC/IC
56	1W	-113	60	FCC/IC
115.2	1W	-109	150	FCC/IC
172.8	1W	-108	180	FCC/IC
230.4	1W	-106	230	FCC/IC
276.4	1W	-105	230	FCC/IC
345	1W	-103	400	FCC/IC
19.2	2W**	-115	25	None*
56	2W**	-110	60	None*
115.2	2W**	-109	150	None*
172.8	2W**	-108	180	None*
230.4	2W**	-106	230	None*
276.4	2W**	-105	230	None*
345	2W**	-103	400	None*

Order Options

SDR400	Base Model(1W 900MHz FHSS & 2W 400MHz Narrow-band Operation)
-840	840-845MHz Frequency Hopping & Single Channel
-AES	128-bit AES Encryption
-C1S	1W @ 900MHz,400MHz Hopping & 2W 400MHz Licenced & 128-bit AES
-C2S	2W @ 900MHz,400MHz Hopping & 2W 400MHz Licenced & 128-bit AES