

AT Command	Command Description
+++	Enter command mode
AT	Reports OK
AT?	Display help text
ATA	Get the current VC status
ATB	Break the link
ATC	Establish VC connection for data
ATD	Display the debug settings
ATF	Restore factory settings
ATG	Generate new netID and encryption key
ATI	Display the radio version
ATI?	Display the information commands
ATIn	Display system information
ATO	Exit command mode
ATP	Display probe trigger settings
ATR	Display radio settings
ATS	Display the serial settings
ATT	Enter training mode
ATV	Display virtual circuit settings
ATW	Save current settings to NVM
ATZ	Reboot the radio
AT-Param=xxx	Set parameter's value to xxx by name (Param)
AT-Param?	Print parameter's current value by name (Param)
AT-?	Display the setting values

Radio Command	Command Description	Default	Min Val	Max Val	Must be same on networked radios
AT-AirSpeed	Data rate over the air. Overrides bandwidth, spread, a	4800	0	38400	Yes
AT-AutoTune	Adjust frequency based on received frequency offset	1	0	1	No
AT-Bandwidth	Low number is longer range, less datarate	500.0	10.4	500.0	Yes
AT-ClientFindPartnerF	Seconds before FIND_PARTNER xmit during training	3	0	255	Yes
AT-CodingRate	Set LoRa link coding rate denominator	8	5	8	Yes
AT-DataScrambling	Apply IBM Data Whitening to reduce DC bias	1	0	1	Yes
AT-EnableCRC16	Include 16-bit CRC with each packet	1	0	1	Yes
AT-EncryptData	Use AES-128-GCM for each packet	1	0	1	Yes

AT-EncryptionKey	16 byte key used for AES encryption	*	0	16 Bytes	Yes
AT-FramesToYield	Pause transmission for X frames to allow 2-way traffic	3	0	255	No
AT-FrequencyHop	Enable frequency hopping spread spectrum	1	0	1	Yes
AT-FrequencyMax	Maximum allowed radio frequency	928.0	≥Min	928.0	Yes
AT-FrequencyMin	Minimum allowed radio frequency	902.0	902.0	≤Max	Yes
AT-HeartBeatTimeout	ms wait before sending link ping	5000	250	65535	No
AT-MaxDwellTime	Amount of time before hopping	400	10	65535	Yes
AT-MaxResends	Attempts before dropping packet	0	0	255	No
AT-NetID	Network ID	192	0	255	Yes
AT-NumberOfChanne	Divide available spectrum by this amount	50	1	255	Yes
AT-OperatingMode	Multipoint, P2P, or VC	1	0	2	Yes
AT-OverHeadtime	Additional ms before ACK timeout occurs	10	0	65535	Yes
AT-PreambleLength	Set LoRa preamble length	8	6	65535	Yes*
AT-SelectLedUse	Define LED behavior	1	0	4	No
AT-Server	Synchronize network clock	0	0	1	No
AT-SpreadFactor	High number is longer range, less datarate	9	6	12	Yes
AT-SyncWord	Set LoRa sync word	0x12	0	255	Yes*
AT-TrainingKey	16 byte AES key used during training	**	0	16 Bytes	Yes
AT-TxPower	Transmit power in dBm	30	14	30	No
AT-TxToRxUsec	µs between when TX sends and RX gets packet	657	0	65535	Yes
AT-VerifyRxNetID	Validate packets against the NetID	1	0	1	Yes

Info Command Command Description

AT10	Show user settable parameters
AT11	Show board variant
AT12	Show firmware version
AT13	Display RSSI value
AT14	Get random byte from RSSI
AT15	Show max possible bytes per second
AT16	Display AES key
AT17	Show current FHSS channel
AT18	Display system unique ID
AT19	Display the maximum datagram size
AT110	Display radio metrics
AT111	Return myVc value

AT112	Display the VC details
AT113	Display the SX1276 registers
AT114	Dump the radioTxBuffer
AT115	Dump the NVM unique ID table

Serial Command	Command Description	Default	Min Val	Max Val	Must be same on networked radios
AT-CopySerial	Copy the serial parameters to the training client	0	0	1	No
AT-Echo	Print locally inputted serial	0	0	1	No
AT-FlowControl	Enable the use of CTS/RTS flow control signals	0	0	1	No
AT-InvertCts	Invert the input of CTS	0	0	1	No
AT-InvertRts	Invert the output of RTS	0	0	1	No
AT-SerialDelay	ms of no data before fractional buffer is sent	50	0	65535	No
AT-SerialSpeed	Hardware UART baud rate	57600	2400	115200	No
AT-UsbSerialWait	Wait for USB enumeration before radio start	0	0	1	No

Debug Command	Command Description	Default	Min Val	Max Val	Must be same on networked radios
AT-CopyDebug		0	0	1	No
AT-Debug		0	0	1	No
AT-DebugDatagrams		0	0	1	No
AT-DebugHeartbeat		0	0	1	No
AT-DebugNvm		0	0	1	No
AT-DebugRadio		0	0	1	No
AT-DebugReceive		0	0	1	No
AT-DebugSerial		0	0	1	No
AT-DebugStates		0	0	1	No
AT-DebugSync		0	0	1	No
AT-DebugTraining		0	0	1	No
AT-DebugTransmit		0	0	1	No
AT-DisplayRealMillis		0	0	1	No
AT-PrintAckNumbers		0	0	1	No
AT-PrintChannel		0	0	1	No
AT-PrintFrequency		0	0	1	No

AT-PrintLinkUpDown	0	0	1	No
AT-PrintPacketQuality	0	0	1	No
AT-PrintPktData	0	0	1	No
AT-PrintRfData	0	0	1	No
AT-PrintTimestamp	0	0	1	No
AT-PrintTxErrors	0	0	1	No