Tag Commands Summery

These following short commands, dictate the behavior of the hx19tx ultrasonic RF tags. Below the # indicates, decimal numeric characters need to follow the command.

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!	Attention all devices. Global call to all devices, including tags respond
T&	Public transmitter call, all tags respond to this call
T#&	Addresses a specific tag privately where # is the tags specific numeric ID.
ee	The device stores current parameters on EEPROM
p#	RF transmission power, used to control the range bubble (default 2, range 0 through 3)
r#	Select RF input channel range (1 to 125). (default ch. 123 = 2.523GHZ)
t#	Select RF output channel range (1 to 1257) (default ch. 123 = 2.523GHZ)
[	Everything between the first opening "[" and the last "]" closing bracket is RF broadcasted
m#	Mode # is a decimal value setting and clearing the mode bits
< >	Received data between the first and the last bracket is placed on the serial wire I/O
d#	Downtime # is a decimal value controlling the sleep duration
h	Deep sleep, the device essentially shuts off (sync strobing will wake the device in 24-64s)
ht	Shut off, device can be turned back on by grounding the USB ID pin (micro USB pin
i#	Period of the monotone ultrasonic burst (default 49 corresponds to 40khz)
n#	Number of periods or length of the burst (default 30 periods)
f#:	Sample rates f1=4 s/s, f2=8s/s and f4=16s/s
b	get battery status
v	get device version
w	get status of work registers
x	Change the RFID of the tag
u	Change the USID of the tag

Mode bits:

Bit.0 Set:	The LED is on during the activity cycle
Bit.1 Set:	USID or ultrasonic ID is emitted during the activity cycle
Bit.2 Set:	RFID or radio frequency ID is emitted during the activity cycle
Bit.3 Set:	Ultrasonic monotone enabled
Bit.4 Set:	Disable USID/RFID on startup *
Bit.5 Set:	Enable Direct Network Access
Bit.6 Set:	Disable serial com pin
Bit.7 Set:	Enables Supply/Battery Monitoring**

Binary fundamentals Example:

To set bit 0, 1 and 6 compute $2^0 + 2^1 + 2^6 = (1+2+64) = 67$ (and enter M&m67)

To set bit 0, bit 2 and 7 compute $2^0 + 2^2 + 2^7 =$ (1+4+128) = 133 (and enter M& m133)

* The hx19tx identifies itself on bootup, if other devices are in sync within range; it may disturb the sync cycle.

** The letter + is added to the RFID, the numeric character 0-9 following + represents the power supply level. It should not be higher than 7 and not lower than 3, to remove the S appendix the mode bit 7 must be cleared and the tag must be allowed to wake up from sleep, i.e. the sync function must be terminated.