

Bluetooth Configuration Guide

23 June 2011

Configuration Commands

The document describes the system configuration variables of Amp'ed RF *abSerial* with their default and range.

To set a configuration variable enter "at+ab config xxxx = yyyy". Where "xxxx" is the variable name and "yyyy" is the value to set. A variable name could also be specified as "varzz". Where zz is the sequence number of the variable.

System Configuration Settings – Version 1.3

| Variable | Name | Default | Description |
|----------|-----------------|--------------|--|
| Var01 | BuildVersion | 110613A | Date code software was built. |
| Var03 | BD_ADDR | 00043e212345 | Bluetooth device address (Read-only). |
| Var04 | DeviceName | Amp'ed Up! | Code used for secure connection. Up to 20 characters are allowed (case sensitive). |
| Var05 | StreamingSerial | true | When True, hardware RTS/CTS flow control is disabled and data not able to transmit over the link will be discarded. When False, RST/CTS flow control is enabled. |
| Var06 | PIN | 1234 | Code used for pairing. Up to 16 characters are allowed (case sensitive). |
| Var07 | UartBaudrate | 115200 | Main UART baudrate: 1200 to 921,600 baud. |
| Var08 | UartParity | none | Main UART parity. |
| Var09 | UartDataBits | 8 | Main UART data bits per character. |
| Var10 | UartStopBits | 1 | Main UART number of stop bits. |
| Var11 | UartTimeout | 44 | Timeout used to determine the end of a message in units of bit times: from 8 to 128 are allowed. |
| Var12 | AutoSniff | false | This enables the sniff feature when the link is inactive automatically. |

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| Var13 | AutoSniffTimeout | 5 | The inactivity timeout in seconds used for AutoSniff above. |
| Var14 | AutoSniffInterval | 1000 | Sniff Slot interval applied AutoSniff. |
| Var15 | HostShallowSleepEnable | true | Enables shallow sleep mode. |
| Var16 | HostDeepSleepEnable | false | Enables deep sleep mode. |
| Var17 | GPIO_HostKeepAwake | none | GPIO register used to prevent the module from entering deep sleep mode. A setting of none means that this function is disabled. |
| Var18 | GPIO_HostWakeup | none | GPIO register used to wake up the module after it enters deep sleep mode. A setting of none means that this function is disabled. |
| Var19 | UseSmallPackets | false | If true, only DM1, DH1, DM3, DH3 packets are allowed on a link. EDR is disabled. |
| Var20 | EnableAFH | true | Enable/Disable the Adaptive Frequency Hopping mode. |
| Var21 | EnablePowerControl | false | Enable/Disable the Bluetooth Dynamic power control feature. |
| Var22 | HostFlowControl | 0 | Reserved for future usage. |
| Var23 | ATReply | AT-AB | Sets the AT command reply prefix. All events that are displayed are prefixed by this character string (case sensitive). |
| Var24 | QoS_Latency | 20 | Sets the Quality of Service Latency from 3 to 20 Slots. A slot size is 625 microseconds. |
| Var25 | CpuMHz | 32 | Sets the module's CPU speed: 2, 4, 8, 12, 16, 20, 24, 28, 32, 36 and 64 Mhz are allowed. (Note: CPUMhz: 40 to 63 are not supported.) |
| Var26 | HciBaudrate | 921600 | Baudrate of the HCI interface to the Bluetooth controller: 230,400; 460,800; 921,600; and 2,000,000 |

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| | | | baud are allowed. |
| Var27 | SPIEnable | false | Enables the SPI interface to external pins. |
| Var28 | SPIMode | slave | Mode of the SPI. |
| Var29 | I2CEnable | False | Enables the I2C interface to external pins. (Note: not supported) |
| Var30 | COD | 240404 | Bluetooth Class of Device. |
| Var32 | HostEvents | true | All host events are sent when True. |
| Var33 | BondingAllowed | true | Automatically allow bonding by default when True. |
| Var34 | PageScan | true | Enables Page scan when True, or halts Page scan when False. |
| Var35 | InquiryScan | true | Enables Inquiry scan when True, or halts Inquiry scan when False. |
| Var36 | MPMode | 0 | 0=Point-to-Point, 1=Multipoint using packet protocol, 2=Broadcast. |
| Var37 | UseExtLPO | true | True when a 32.768KHz low power oscillator is present, and False if not present. |
| Var38 | HSE_MHz | 13 | MHz rating of the main crystal oscillator (Read-only) |
| Var39 | EnableEncryption | false | Set to True to enable the Bluetooth link encryption |
| Var40 | DefaultSecurity | 4 | Default security mode should be 1 for no security or 4 for Authentication required. Modes 2 and 3 are used for legacy compatibility. |
| Var41 | DefaultAuthentication | 5 | Default security level the values should be between 0 – 255. |
| Var42 | EnableIAP | true | Enables IAP Mode to support iOS devices. |

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| Var43 | AllowSniff | true | Enables sniff mode. |
| Var44 | iAPAppID | A123CDFG445 | This variable identifies the iOS application ID. |
| Var45 | iAPPProtocolStrMain | com.****.Demo | This variable defines the main connecting string for the iOS Application. |
| Var46 | iAPPProtocolStrAlt | com.****.ProtocolAlt | This variable defines the alternative connecting string for the iOS Application. |
| Var47 | CPI2CMode | 3 | Apple CP Chip I2C address mode 2 or 3. |
| Var48 | SPP128UUID | true | This variable enables the 128-bit UUID for the Android Devices. |
| Var49 | EnableRPN | false | Remote Port Negotiation enables. |
| Var50 | HardwareType | BT-11L | Identifies the hardware type. |

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