## 1012 WSPR-TX_Desktop Serial API as used from sofware version 0.96

| PC User config Set or Get commands | | | Type of data and number of bytes | | | User config is sent by the PC configuration software |
|---|---|---|---|---|---|---|
| **Description** | **Send** | **Set/Get** | **Data [8..]** | **Data** | | **Comment** |
| Cmd CurrentMode | [CCM] | S/G | Text 1 S=Sig, W=WSPR, N=None | | | |
| Cmd User Config Store in EEPROM | [CSE] | S | | | | |
| Opt TX Pause | [OTP] | S/G | Text 5 0-99999 Minutes | | | |
| Opt StartMode | [OSM] | S/G | Text 1 S=Sig, W=WSPR, N=None | | | |
| Opt Band TX Enable | [OBD] | S/G | Text 2 Text 1 - Band number * , E/D E=Enable, D=Disable | | | |
| Opt Location | [OLC] | S/G | Text 1. G=GPS calculated, M=Manual (DL4 or DL6 data) | | | |
| Opt Locator Precision | [OLP] | S/G | Text 1. 4 or 6 = Number of character used in the Maidenhead report. | | | |
| Opt Power | [OPW] | S/G | Text 1. N=Normal using the DPD Power Data. A=Altitude encoded. | | | |
| Dat CallSign | [DCS] | S/G | Text 6 | | | |
| Dat Locator 4 | [DL4] | S/G | Text 4 Maidenhead grid with four characters | | | |
| Dat Locator 6 | [DL6] | S/G | Text 6 Maidenhead grid with six characters | | | |
| Dat PowerData | [DPD] | S/G | Text 2 Power in dBm. Pading with a leading zero to two characters 0-60dBm | | | |
| Dat Name | [DNM] | S/G | Text 40 | | | |
| Dat Generator Freqvency | [DGF] | S/G | Text 12 Frequency in Centi Hertz. Paded with leading zeros to 12 characters | | | |
| Debug Set LP Filter | [CSL] | S | Text 1. Text1=A,B,C or D for LP bank. | | | LP filters are automatically set by the WSPR Beacon and Signal Gen. routines but can be temporarily overrided by this command for testing purposes |

| PC Factory config Set or Get commands | | | Type of data and number of bytes | | | Factory data is sent by the PC Factory configuration software |
|---|---|---|---|---|---|---|
| **Description** | **Send** | **Set/Get** | **Data [8..]** | **Data** | | **Comment** |
| Factory Product model Number | [FPN] | G | Text 5 0-65534 | | | 1011=WSPR-TX_LP1, 1012=WSPR Desktop, 1017=WSPR Mini |
| Factory Hardware Version | [FHV] | S/G | Text 3 0-255 | | | |
| Factory Hardware Revision | [FHR] | S/G | Text 3 0-255 | | | |
| Factory Software Version | [FSV] | G | Text 3 0-255 | | | |
| Factory Software Revision | [FSR] | G | Text 3 0-255 | | | |
| Factory Reference Oscillator Frequency | [FRF] | S/G | Text 9 Frequency in Hertz. Paded with leading zeros to 9 characters | | | Normally 026000000 |
| Factory Low Pass Filter installed | [FLP] | S/G | Text 1 A,B,C or D for indicating or setting bank of low pass filter A to D | Text 2 00 to 15 for band * | | 98=just a link between input and output - the firmware will use this if no other filter is a good match, 99=Nothing fitted (open circut) the firmware will never use this as a filter |
| Cmd FactoryConfig Store in EEPROM | [FSE] | S | | | | |

| Arduino replies for Get commands | | | Type of data and number of bytes | | | Replies from the Arduino in respons to a Get query |
|---|---|---|---|---|---|---|
| **Description** | **Return** | | **Data** | **Data** | | |
| Cmd CurrentMode | {CCM} | | Text 1 S=Sig, W=WSPR, N=None | | | |
| Opt TX Pause | {OTP} | | Text 5 0-99999 Minutes | | | |
| Opt StartMode | {OSM} | | Text 1 S=Sig, W=WSPR, N=None | | | |
| Opt Band TX Enable | {OBD} | | Text 2 Text 1. Band number *, E=Enable, D=Disable | | | |
| Opt Location | {OLC} | | Text 1. G=GPS calculated, M=Manual (DL4 data) | | | |
| Dat CallSign | {DCS} | | Text 6 | | | |
| Dat Locator 4 | {DL4} | | Text 4 | | | |
| Dat Locator 6 | {DL6} | | Text 6 | | | |
| Dat PowerData | {DPD} | | Text 2 (00 to 60) dBm | | | |
| Dat Name | {DNM} | | Text 40 | | | |
| Dat Generator Freq | {DGF} | | Text 12 Frequency in Centi Hertz. Paded with leading zeros to 12 characters | | | |

| Arduino Status update messages | | | Type of data and number of bytes | | | These messages are sent whenever the Arduino thinks it's appropriate |
|---|---|---|---|---|---|---|

| Description | Return | | Data | Data | | |
|---|---|---|---|---|---|---|
| Current Mode | {CCM} | | Text 1 S=Sig, W=WSPR, N=None | | | |
| GPS locator 4 char Maidenhead | {GL4} | | Text 4 | | | |
| GPS Locator 6 char Maidenhead | {GL6} | | Test 6 | | | |
| GPS Time | {GTM} | | Text 8 HH:MM:SS | | | |
| GPS Lock | {GLC} | | Text 1 T=True F=False | | | |
| GPS Satellite data | {GSI} | | Text2 Text3 Text2 Text2 - ID Az El SNR | | | |
| Transmitter Frequency | {TFQ} | | Text 5-12 Frequency in centiHz, no leading zeros | | | |
| Transmitter On | {TON} | | Text 1 T=True F=False | | | |
| Microcontroller Paus | {MPS} | | Text 7 0-4,000,000Seconds | | | |
| Microcontroller Information | {MIN} | | Text | | | |
| Low Pass filter set | {LPI} | | Text 1 A-D | | | |
| MicroController VCC Voltage | {MVC} | | Text 4 0-9999mV (Normally 3300) | | | |
| Transmitter Current Band | {TBN} | | Text 2=Band number * | | | |
| Transmitter WSPR Symbol | {TWS} | | Text 2 Text3 Band number *, WSPR symbol count 0-161 | | | |
| Transmitter WSPR Band Cycle Complete | {TCC} | | | | | |

* Band number definitions

00=2190m

01=630m

02=160m

03=80m

04=40m

05=30m

06=20m

07=17m

8=15m

9=12m

10=10m

11=6m

12=4m

13=2m

14=70cm

15=23cm