

Information on Compliance for FCC Tsien (UK) Ltd Kestrel Radar Sensors

The following devices were tested in a system to simulate a final functional product for compliance with FCC CFR47 (Part 15 Subpart B), specifically Radiated Emissions. Tests were conducted using standards which meet or exceed those requirements as set out in FCC CFR47 (Part 15 Subpart B).

K2XX Pico Radar Standard K2XX Pico Radar DSP
K2 Pico Led Driver K2 Pico BlueTooth
K2 Pico Modem K2 Pico GPS
K2 Pico Zifi (ZigBee) K2 Pico IO_485

Kestrel 30CM 2+1/2 digit Led Sign
Kestrel Slow Down Led Sign
Kestrel 12cm Beacons

Standards applicable to included modules:

FCC Rules CFR47

A number of boards listed integrate intentional transmitters and these modules including the Antenna module, BlueTooth module, Modem module, ZigBee module, GPS module. These modules are supplied with certificates of compliance or compliance statements from the original manufacturers under the following FCC CFR47 Parts:

Part 15 Subpart B – Intentional Radiators

15.247 Operation within the bands 902-928 MHz, 2400-2483.5 MHz and 5725-5850 MHz. Frequency Hopping and Digital Modulated Intentional Radiators.

BlueTooth and WLAN (2.4GHz)

15.245 Operation within the bands 902-928 MHz, 2435-2465 MHz, 5785-5815 MHz, 10500-10550 MHz, and 24075-24175 MHz.

15.249 Operation within the bands 902-928 MHz, 2400-2483.5 MHz, 5725-5875 MHz, and 24.0-24.25 GHz.

Radar Antenna @ 24GHz

Part 22 – Public Mobile Services

Subpart E – Paging and Radiotelephone Service

Subpart H – Cellular Telephone Service

GSM/WCDMA (Modem)

Modular Approvals, Single Modular Approvals and Limited Modular Approval details:

BlueTooth Module TiWi UB2 from LSR Research LLC

Modem Module SIM900 from Shanghai SIMcom Wireless Co. Ltd

GPS Module SIM28 from from Shanghai SIMcom Wireless Co. Ltd

ZigBee XBee ZB SMT (S2C) Module from Digi International

Antenna IPS154 from Innosent GmbH

Antenna DF300 ST Electronics (Satcom &Sensors Systems) Pte Ltd

Antenna DF600 ST Electronics (Satcom &Sensors Systems) Pte Ltd

Antenna IPS154 from Innosent GmbH

FCC Identifier: UXS-IPS154US

Antenna DF300 ST Electronics (Satcom &Sensors Systems) Pte Ltd

FCC Identifier: VECD300-0

Antenna DF600 ST Electronics (Satcom &Sensors Systems) Pte Ltd

FCC Identifier: VECD6

BlueTooth TiWi UB2

FCC Identifier : TFB-BT1

GSM/GPRS Modem SIM900

FCC Identifier: UDV-0912142009007

GPS Receiver SIM28

(Receiver device no FCC identifier required, R&TTE EN301 489 -1/-3 and EN300 440 /-2, found to be compliant with FCC CFR47 Part 15 as subjected to in system test outlined)

Xbee ZB SMT (S2C)

FCC Identifier: MCQ-XBS2C

Its is the responsibility of the system integrator or manufacturer of the final equipment to ensure that his/her product meets the requirements of the various standards and that all appropriate FCC ID labels and notification markings are placed on such equipment sold in the USA or countries that accept the FCC mark. Care and attention should be paid to co-location of Antennas for communication modules and minimum spacing of at least 20cm should be adhered to. Additional guidance can be found on Module data sheets from respective module suppliers.

Copies of the Certificates and compliance statements as well as the full test report for the system outlined above are available on written request from Tsien (UK) Ltd trading as Kestrel Radar Sensors.