Hexamite Ltd is looking for DEVELOPMENT PARTNERS and companies interested in joint venture

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FEATURES (specs)

- RF Ultrasonic Positioning System, NO WIRES
- Device to device distance measurement to 14 Meters
- Combination Ultrasonic and RF identification
- Adjustable RF range bubble
- All devices have a long life battery option
- USB and serial interface to RF network
- All positioning contingencies with three basic components
- Absolute wide area accuracy better than 9mm

APPLICATION

- Personnel Management and Payroll Systems
- 3D Studio and Filming Application
- Virtual Reality and Gaming
- Automation and Manufacturing Application
- Armed Forces and Police training
- Robotics Guidance and Tracking
- Sports and athletics performance logging and training
- Security control and management
- Medical: patient control and management

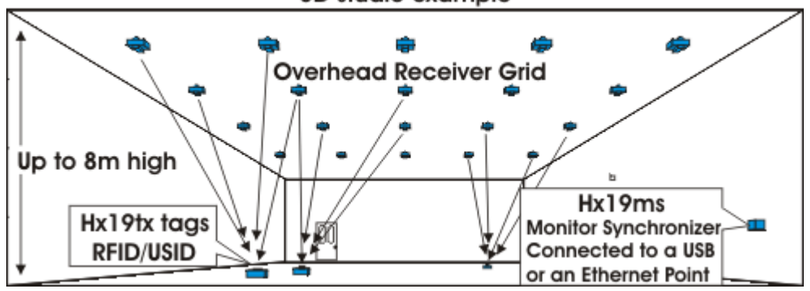
RFID (radio frequency identification) with USID confirmation (ultrasonic identification), and precision absolute positioning

Entirely wireless, the Hx19 system facilitates new applications and significantly simplifies setup and installation. Applications range from high level personnel management and payroll systems, to manufacture automation control.

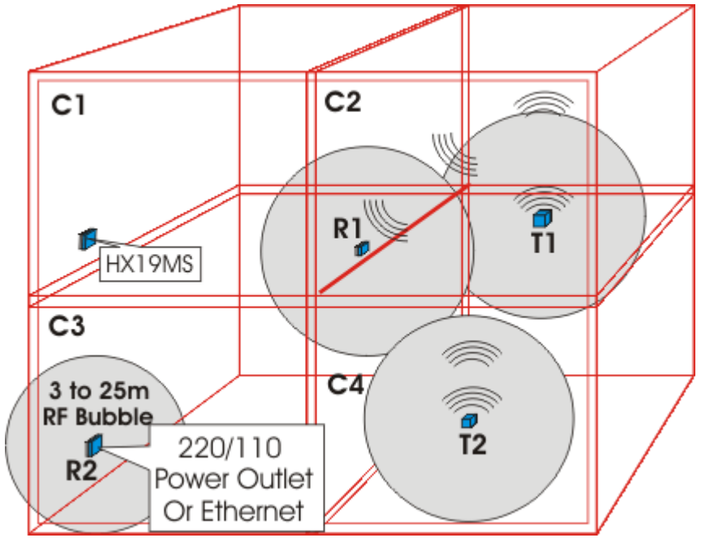
Since setup and installation is wireless, and the positioning is synchronized, the system can compute the location of fixed points and auto-calibrate. There is no longer a need to map the fixed points, the system can compute these automatically.

The Hx19 combines 2.4Ghz communication, RFID and 40khz USID (radio frequency and ultrasonic identification respectively). Hence opening up a new dimension in personnel or patient management systems, as well as industrial positioning systems. RF penetration of walls can be an uncertainty drawback, the floor or room containing the RFID cannot be determined.

3D studio example



The illustration above shows a receiver grid mounted on a ceiling of a hanger size confine. Such network will monitor the position of the Hx19tx tags to within 9mm anywhere within the space, at rates up to 20 samples/second 3d. This facility is suitable for sports, police and armed forces training.



Above, the cube represents four confines C1,C2,C3 and C4 separated by walls within a building. T1 and T2 are hx19tx USID/RFID tags. R1 and R2 are hx19rx receivers. Conventional RF tracking systems may not be able to indicate which room or floor holds the RFID. Since USID ultrasonic ID is unable to penetrate walls, it bounces around until it is detected by R2 (see confine C2). R1 will detect the RFID from T2, but it will not detect its USID. Therefore the R1 data string output will contain T2 RFID, but not T2 USID (no USID confirmation). The hx19rx receiver and the hx19ms synchronizer can be plugged into a 220/110V wall socket or an Ethernet point. One or two receivers should provide sufficient coverage for a small office space. Note that the RF bubbles are adjustable from 3 to 25 meters, in four steps.

Generous Student Discounts

Ultrasonic RF tags

HX19TXHBE USID/RFID

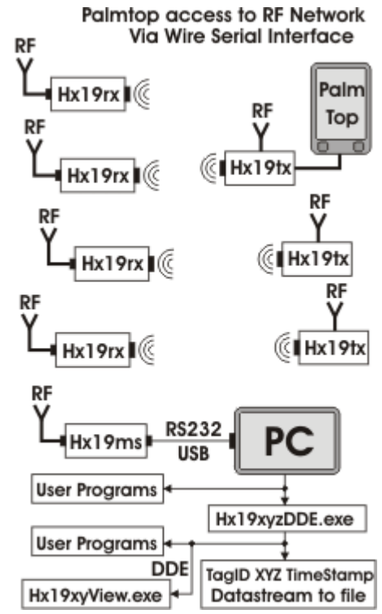
HX19TXCB USID/RFID

HX19TXCWE USID/RFID with wire access to RF network

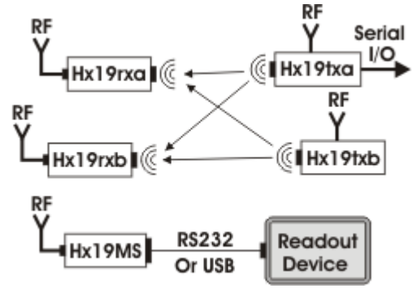
Size: 35 x 35 x 15 mm

HX19RX USID/RFID receiver
Size: 40 x 80 x 20 mm

HX19MS Monitor/Synchronizer
Size: 40 x 80 x 20 mm



The above depicts a system of multiple hx19 devices, i.e. multiple receivers detecting multiple tags. One tag is shown connected to a palm top, in this case the palmtop has access to the RF network, and can determine own position through a serial I/O. The Hx19 comes with software that computes the 3d (xyz) coordinates of each tag, relative to mapped receivers. Coordinates are available through real time DDE interface, and stored on a file. Users have DDE access to coordinates, or can tap directly into the data stream coming through the USB port.



Shown above is a basic small system. Tag identities are known, so are the distances from hx19txa to hx19rxa and hx19rxb, and hx19txb to hx19rxb and hx19rxa. Distance and identification data, stream from the hx19 receivers through the hx19ms monitor synchronizer at 250kbaud. This DataStream can be processed using a readout CPU; and results transmitted through RF to the Serial I/O wire on the hx19txa.