

# RTS System

## Operational Description

The Laser Chaser RTS System is an electronic target game. Players wear a vest that has electronic sensors on it. The players carry a phaser that is connected to the vest. The phaser emits an infrared beam that is used to score a hit on another player.

The Laser Chaser RTS System consists of two (2) major subsystems.

### Fourm System

The forum system consists of three basic sections.

#### Computer System

The computer system is the interface between the user and the RTS system equipment.

The Computer System is an off-the-shelf item and subject to Subpart B 15.101 Class B Digital Device Declaration of Conformity or Certification by its manufacture.

#### Smart Card Programmer

The Smart Card Programmer provides configuration for the system and connects to the Computer System via a shielded cable.

The Smart Card Programmer is an unintentional radiator subject to Subpart B 15.101, Class A Digital Device Verification.

#### Arena Transceiver (FCC ID: NIPTRANS, subject of this report)

The arena transceiver emits periodic control and timing codes to the player packs during a game. It also receives game information from the player pack. The arena transceiver is connected to the Smart Card Programmer via a shielded cable.

The Arena Transceiver transmits with an approximate 2.8% duty cycle.

The Arena Transceiver is an intentional radiator subject to Subpart C 15.249, Intentional Radiator Certification.

### **Player Pack (FCC ID: NIPRTS)**

The player pack is worn by the player in the game. It consists of a vest and phaser. The vest has sensors mounted on it that receive an infrared beam emitted from another player's phaser. The player pack consists of three basic sections.

#### **(1) Transmitter**

The transmitter sends scoring data to the arena transceiver on a predetermined timing slot. It is mounted on the left shoulder of the vest. The antenna is a permanently attached rubber duck style.

The transmitter is an intentional radiator subject to Subpart C 15.249, Intentional Radiator Certification.

#### **(2) Receiver**

The receiver receives a signal from the arena transceiver for synchronization purposes. It is mounted on the right shoulder of the vest.

The receiver is an unintentional radiators subject to Subpart B 15.101, Class A Digital Device Verification.

#### **(3) Phaser Controller Board**

The phaser controller board processes the game information and processes the infrared signal received and transmitted by the phaser. This circuit board is housed in the phaser.

The Phaser Controller Board is an unintentional radiator subject to Subpart B 15.101, Class A Digital Device Verification.