



## DCX900 EUT Description

The ARRIS Model DCX900 is a UHD 4kp60 Cable Television Set-top box with an embedded multi-channel full-band capture QAM front-end receiver and video back-end processor supporting video presentation and transcoding as well as other embedded functions. It is capable of presenting encrypted SD and HD video content through HDMI™ 2.0 and Analog Composite (SD content only), digital audio is presented through HDMI™ and Optical SPDIF, and analog audio is presented through baseband 3.5mm connector. It has a removable hard-drive for DVR capability and dual USB3.0 ports for external peripherals. Wireless interfaces include Bluetooth 4.1+ HS-compliant 2.4GHz transceiver with embedded antenna and RF4CE with embedded antennas. It has front panel buttons and 38 kHz IR receiver for user interface. System memory consists of DDR4, eMMC, and SPI Flash. The DCX900 is home networking capable through MoCA® and Gigabit Ethernet. This model has a removable CableCard for content security.

### RF4CE Description:

DCX900 has a Zigbee RF4CE transceiver that is based on a Greenpeak GP510 reference design utilizing a 2.4GHz IEEE 802.15.4 compliant chipset. It uses two printed inverted “F” antennas to improve diversity. Nominal power is 0dBm, and modulation is per IEEE 802.15.4-2003 and -2006, which is O-QPSK. Max power is < 0.5dBm not including antenna gain. Greenpeak Antenna gain is 3.0dBi.

### Bluetooth Description:

DCX900 has Bluetooth 4.1+ HS-compliant 2.4GHz transceiver that is based on a Broadcom BCM20704 reference design. It uses single printed inverted “F” antenna. Typical power and modulation are shown in Table below. Max power will be identified during regulatory testing.

BDR: GFSK

EDR: pi/4-DQPSK, 8-DPSK

BLE: GFSK

**Table 16: Transmitter RF Specifications<sup>a b</sup>**

| Parameter                          | Conditions | Minimum | Typical | Maximum | Unit |
|------------------------------------|------------|---------|---------|---------|------|
| <b>General</b>                     |            |         |         |         |      |
| Frequency range                    | –          | 2402    | –       | 2480    | MHz  |
| Class1: GFSK TX power <sup>c</sup> | –          | –       | 12      | –       | dBm  |
| Class1: EDR TX power <sup>d</sup>  | –          | –       | 9       | –       | dBm  |
| Class 2: GFSK TX power             | –          | –       | 2       | –       | dBm  |
| Power control step                 | –          | 2       | 4       | 8       | dB   |