



## EQUIPMENT

The 7GHz Truck-Coder II (TCII) is a non-broadcast mobile transmitter for use in the frequency range of 6425 MHz to 7125 MHz.

This product supports the following Emission Designators:

FCC ID	Modulation	Emission Designators		
CNVTCII-ODU-9	Digital	6M00W7D	7M00W7D	8M00W7D
CNVTCII-ODU-9	Analog	15M0F8W		

Operation under FCC rule parts: **74**

## APPLICATION

Truck-Coder II is designed for use in ENG News Vehicles (rule part 74). The TCII supports transmission of video, audio, and data.

## OPERATION

The TCII operates in both digital (COFDM) and legacy analog (FM) transmission modes. It features a DVB-T compliant (COFDM) modulator MPEG2 video encoder. The system is designed to support the existing 25MHz BAS channel plans (in both Digital and FM transmission modes). For BAS application the entire frequency range (6425MHz to 7125MHz) is divided by two sub-bands: the low-band (6425MHz – 6525MHz) and the high band (6875MHz – 7125MHz). The 7GHz TCII is operable over 4 x 25MHz channels on the low-band and 10 x 25MHz channels on the high band respectively.

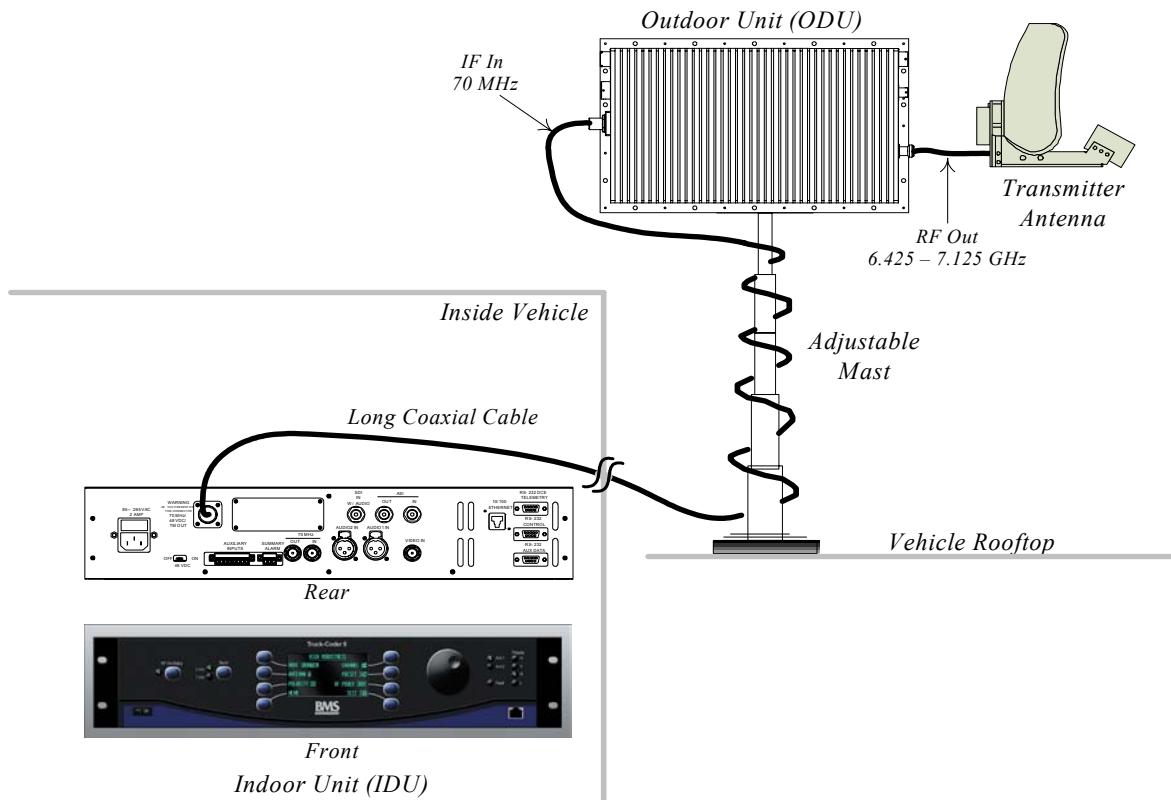
Figure 1 shows a symbolic diagram of the 7GHz Truck-Coder system. The two-unit system consists of an Indoor rack-mounted exciter Unit (IDU) and an Outdoor mast-mounted RF Transmitter Unit (ODU). An optional second RF unit can be added to support dual band operation. The Indoor Unit (located inside the vehicle) produces 70 MHz IF signal by modulating the input video, audio, and or data. The IDU supports multiple analog and video signal formats and provides an industry standard 70MHz IF output.

The IF signal is transferred through a long coaxial cable to the Outdoor Unit (ODU) located on the antenna mast. The antenna mast is an foldable structure on the vehicle rooftop. The mast supports the ODU, the transmitter antenna as well as the feed assembly as shown symbolically in Figure 1.

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**Figure 1** Symbolic diagram of the 7GHz Truck-Coder II Assembly

The ODU converts the 70 MHz IF signal into the final RF frequency within the 6.425 GHz to 7.125 GHz range. The output RF is directly fed to the antenna.