



- DAB/FM/AM Universal Tuner
- Dual Band DAB, Band III and L Band reception
- Individual antenna inputs for DAB, FM, and AM for best possible reception of all broadcast formats
- DAB Favorite Station Memory
- 30 FM Station Presets, 10 AM Station Presets
- RDS PS and RT for FM broadcasts
- 2 Line Dot Matrix Display indicates station frequency, Preset and Favorite Station titles, and other information broadcast by individual DAB and FM stations
- Optical TosLink Digital SPDIF Output for DAB signals
- Audiophile quality DAC and analog line stage
- Simple intuitive operation
- Remote control

### DIGITAL AUDIO BROADCASTING

In many parts of the world today, digital broadcasting (DAB) is taking over from analog broadcasting (AM/FM). The reasons for this are simple, with digital transmission; many more stations can 'fit' into the available radio spectrum. Included with this extra choice of program is noise-free audio and enhanced text information about the program, artist, and music, as well as technical information about the broadcast itself. While different countries are taking different approaches to DAB implementation, one thing is certain, DAB is here to stay!

### NAD's APPROACH TO DAB

We wanted to develop a radio tuner that fully exploited the new medium of DAB yet maintained NAD's core values of performance, value, and simplicity. The C445 employs a dual band DAB radio frequency (RF) section that works equally well with the two most popular DAB transmission formats; Band III and L Band.

We also decided that while DAB represents the future of broadcasting, there are still many excellent programs on traditional AM and FM bands, thus we have a tuner that accepts both digital and analog methods of broadcasting in one easy to use product.

### PERFORMANCE

DAB broadcasting, by its very nature, improves many areas that were constant annoyances with

traditional AM and FM broadcasting. The almost complete absence of noise and linear distortion make DAB broadcasts sound clear across a broad range of signal strengths. This is great on spoken word programs, but the medium shows its shortcomings with musical programs. Here, the data reduction algorithms (MPEG) and very low data rates sometimes employed, can cause very unmusical effects. Music can lose its rich texture, especially in the higher frequencies.

On good quality broadcasts, DAB can rival the sound quality of the CD, and for this reason we have used the same high quality parts and proven design for D/A conversion as we use in our award winning CD Players, the C521BEE and C542. We also include a digital output that can be used to feed high end external D/A converters and other units equipped with an SPDIF digital input.

Professional quality D/A converters and OPamps are sourced from Burr Brown and implemented using optimized digital and analog circuits. NAD's expertise in extracting every last ounce of musicality from a circuit is evident from the moment you switch on the C445 and tune in your first station.

FM broadcasting, like DAB, requires a 'line of sight' from the transmitter to the radio tuner's antenna. The C445's FM tuning section is especially good at extracting the best quality signal even under difficult reception conditions. A careful balance of sensitivity, selectivity, and capture ratio and dynamic range assures the best possible audio quality with every available FM station. RDS functions of PS (station name) and RT (radio text) are included for those stations broadcasting with RDS.

AM is the oldest form of radio transmission, and yet has the longest 'reach' of the commonly available broadcast bands. While signal transmission quality is the most variable of the three types of radio included in the C445, NAD strikes a perfect balance between wide frequency response and good noise suppression. The result can be surprisingly good when the broadcast quality allows.

### CONVENIENCE

In addition to the obvious convenience of having DAB, FM, and AM in one component, we have included many thoughtful features to make the operation of the C445 more enjoyable. Whether you operate the C445 from the front

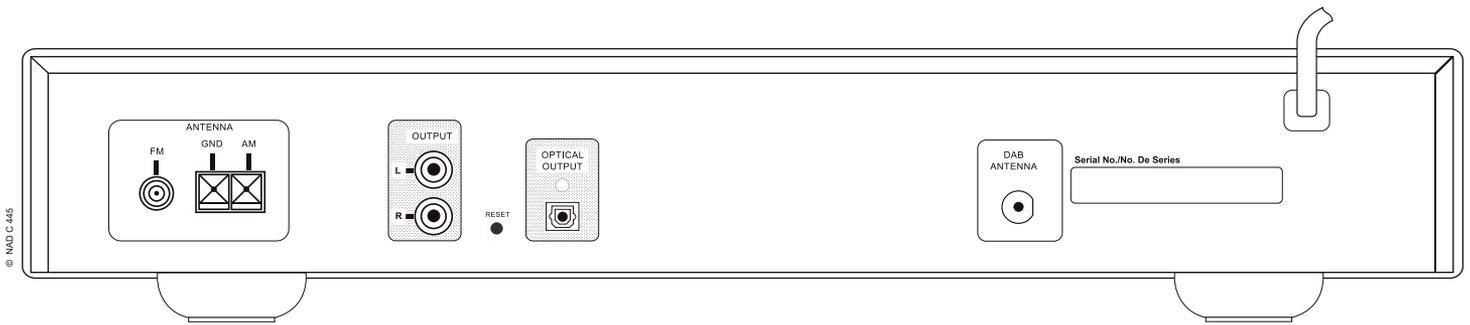
panel or via the included wireless remote control, all functions are easily controlled. The two line dot matrix display clearly indicates essential information required for operation. Additional information included with DAB and FM RDS transmission is scrolled across the display.

Station Presets are available to make it easy to find your favorite stations. There are 30 FM and 10 AM memory positions available. DAB handles presets a little differently, with all 'available' stations listed in alphabetical order. With DAB there are many more stations, and stations are recognized by name rather than frequency of

broadcast as is AM and FM. These DAB station offerings can often change throughout the day allowing for a broader diversity of program offerings.

### VALUE

The C445 hits a new high water mark for value by offering the highest levels of audio performance combined with flexibility and convenience, all at a very affordable price. While there have been some very good performing tuners at a very high price, and some basic models available at a low price, the C445 strikes a perfect balance of cost to performance.



### SPECIFICATIONS - Preliminary

#### FM Tuner Section

Usable input sensitivity; FM mono	16.1dBf
50dB Quieting sensitivity; FM stereo	36.1dBf
Capture ratio (FM)	3dB
Image rejection	>60dB
Harmonic distortion; FM mono	0.25%
Harmonic distortion; FM stereo	0.5%
Signal/noise; mono	65dB
Signal/noise; stereo	60dB
Channel separation at 1kHz	>40dB
Frequency response	15Hz-15kHz, ± 1.5dB

#### AM Tuner Section

Usable sensitivity	24dBµV
Selectivity	21dB
Image rejection	40dB
IF rejection	45dB
Signal/noise ratio	45dB
Harmonic distortion	2%

#### DAB Tuner Section

Tuning Range: Band III	174 - 240 MHz
Tuning Range: L Band	1423.96 - 1490.624 MHz
Sensitivity: Band III	-96dBm typical
Sensitivity: L Band	-93dBm typical
Signal/noise	100dB
Frequency response	20Hz - 20kHz ± 1dB

#### Physical Specifications

Dimensions (W x H x D)	17 1/8 x 2 3/4 x 11 1/4" (435 x 70 x 285mm)
Net Weight	8.8 lbs (4kg)
Shipping Weight	13.2 lbs (6kg)

\* Dimensions are of unit's cabinets without feet attached; add up to 18mm for total height. Dimension depth excludes terminals, sockets, controls and buttons.

