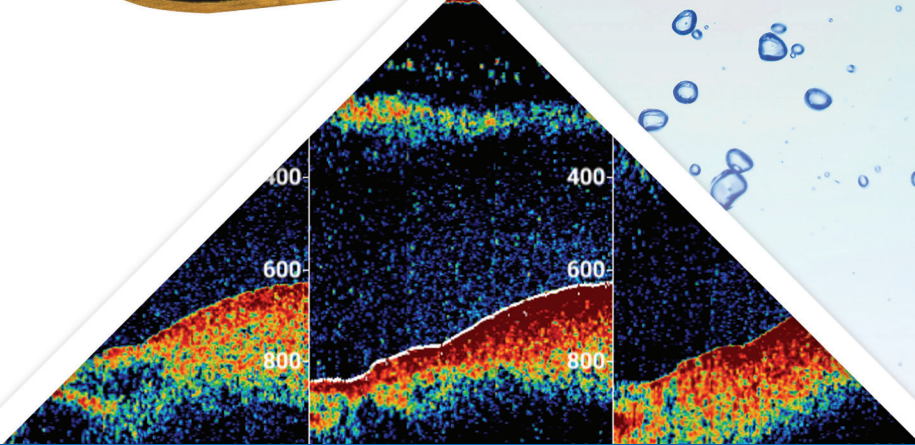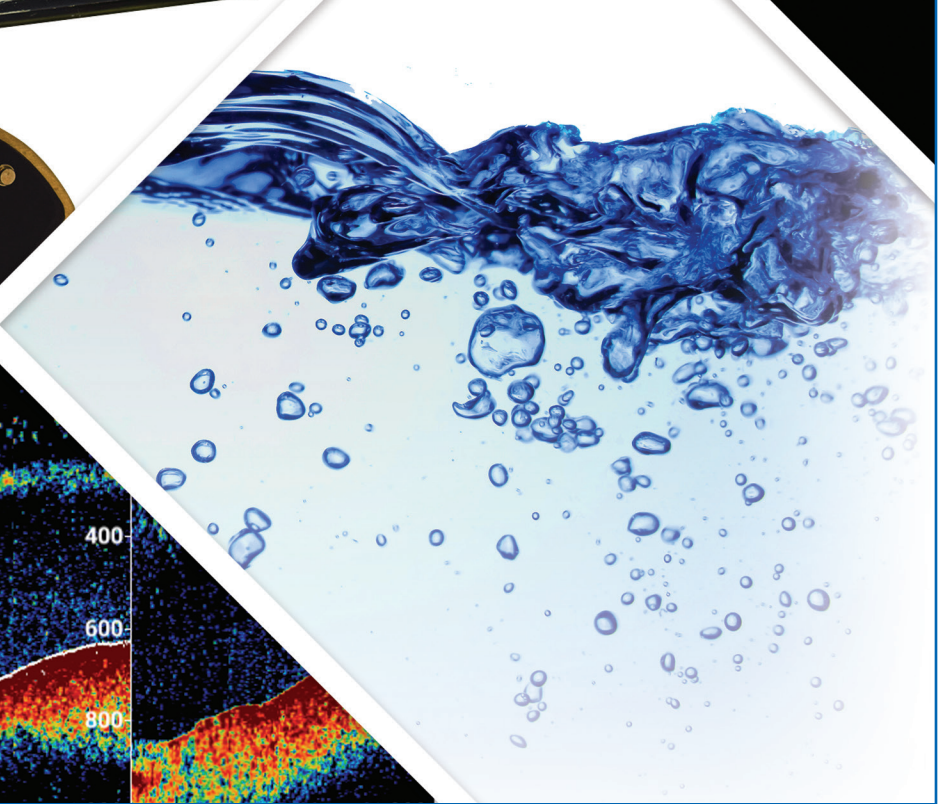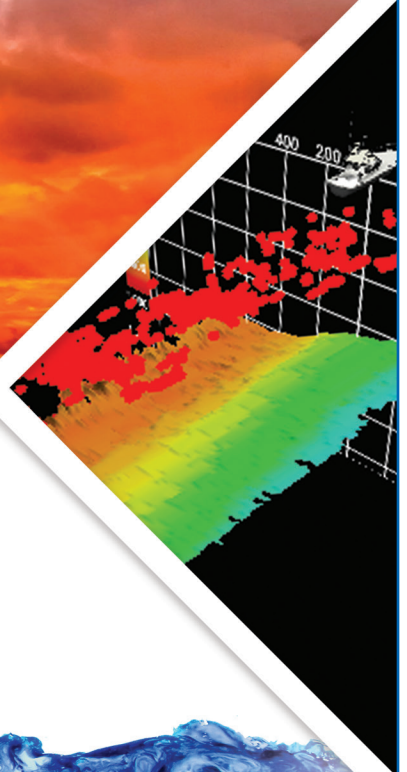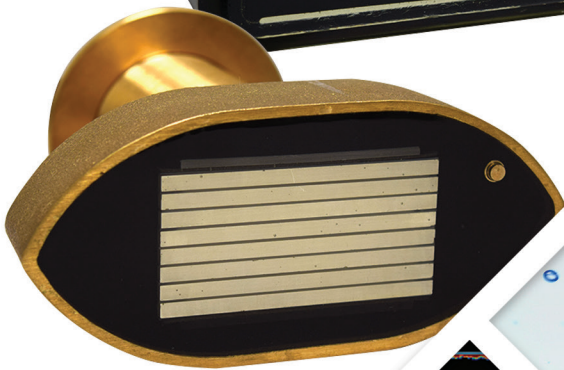DFF3D
Multi-Beam Sonar
Supported Transducers

NETWORK MULTI BEAM SONAR

DFF3D

FURUNO

Single Frequency (DFF3D only) Transducers

These transducers have specific DFF3D elements. They are only for use with the DFF3D Multi-Beam Sonar. Four transducers fall into this category: A bronze thru-hull, a stainless thru-hull, a pocket or keel mount, and a transom mount.

165T-B54 Bronze Thru-Hull Multi-beam Transducer

The 165T-B54 is a multi-beam transducer for the DFF3D that affords a 120-degree port-starboard view of the underwater world. A built-in motion sensor stabilizes the display to give clear and stable images.
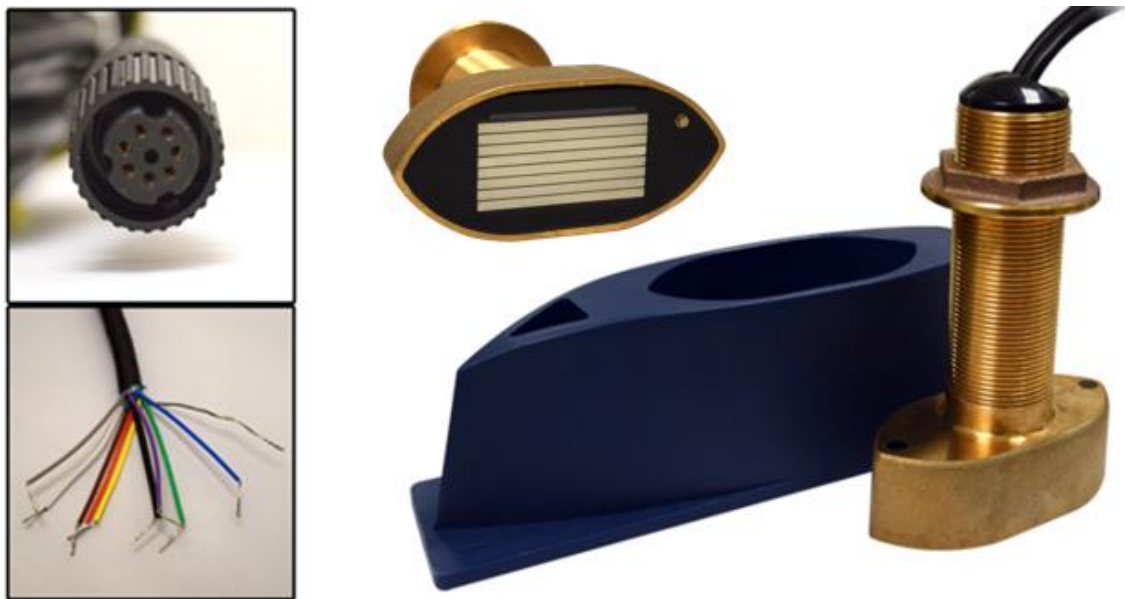
Standard Features

- Bronze Thru-Hull with high speed fairing block. Can be flush mounted in keel without using fairing block.
- DFF3D Elements 165khz
- 10M Cables with 7pin connector and pigtail cable
- Compact design
- Built-in motion sensor
- Built in temp sensor

165T-SS54 Stainless Thru-Hull Multi-beam Transducer

Standard Features

- Stainless Thru-Hull with high speed fairing block. Can be flush mounted in keel without using fairing block.
- DFF3D Elements 165khz
- 10M Cables with 7pin connector and pigtail cable
- Compact design
- Built-in motion sensor
- Built in temp sensor
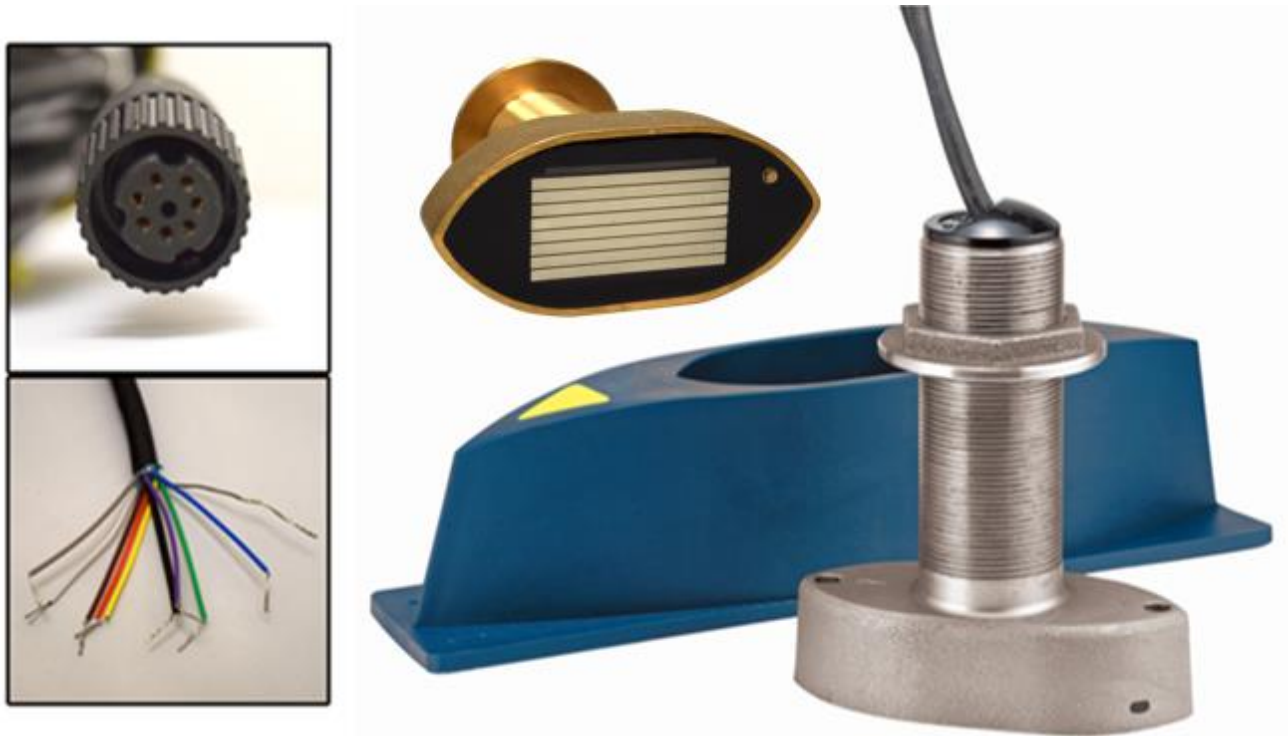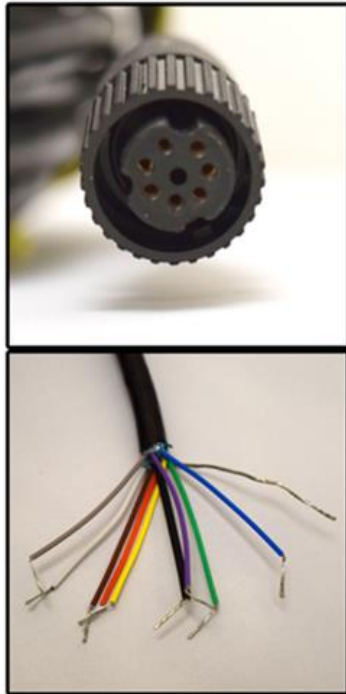
165T-TM54 Transom Mount Multi-Beam Transducer

The 165T-TM54 is a multi-beam transducer for the DFF3D that affords a 120-degree port-starboard view of the underwater world. A built-in motion sensor stabilizes the display to give clear and stable images.

Standard Features

- DFF3D Elements 165khz
- Transom mount with stainless steel kick-up bracket
- 10M Cables with 7pin connector and pigtail cable
- Built-in motion sensor
- Built in temp sensor

165T-CM54 Pocket or Keel Mount Multi-Beam Transducer

The 165T-CM54 is a multi-beam transducer for the DFF3D that affords a 120° port-starboard view of the underwater world. A built-in motion sensor stabilizes the display to give clear and stable images. It can be keel or pocket mounted.
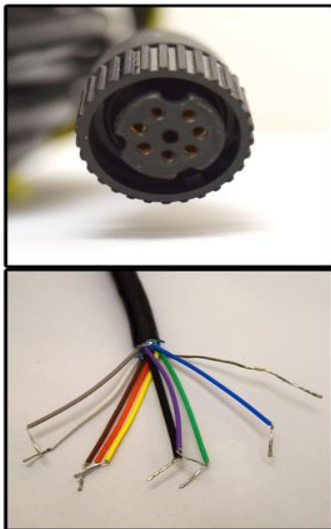

Standard Features

- DFF3D Elements 165khz
- Designed for keel or pocket mounts
- 10M Cables with 7pin connector and pigtail cable
- Built-in motion sensor
- Built in temp sensor

Combination Transducers

These transducers have the DFF3D elements along with either the B265 L/H CHIRP, B275 L/H CHIRP wide elements, B164 50/200 kHz elements, or 30-60 kHz L, 80-130 kHz M and temp. They can be connected to the DFF3D Multi-Beam Sonar along with one Fish Finder. These transducers save money and space compared to purchasing and installing two separate transducers.

165T-50/200-SS260 DFF3D 50/200 Stainless Combination Thru-Hull

SS260 housing
DFF3D array
1 kW B164 50/200 kHz array

Standard Features

- Stainless Thru Hull with high speed fairing block. Can be flush mounted in keel without using fairing block.
- DFF3D Elements (165khz)
- Built-in motion sensor
- 1kW, 50/200 kHz, 20/6 ° beam angles for Fish Finder elements. Same elements as an AIRMAR B164 transducer.
- 12M Cables with 10-Pin Connector for Fish Finder, 7 pin connector and a pigtail cable for the DFF3D.
- Recommended for a TZtouch3, TZtouch2, or a TZtouch/DFF1/BBDS1 and DFF3D installation. If using with a TZtouch3, use TZtouch3 supplied adapter cable to convert from 12p to 10pin.
- Built in temp sensor

165T/265LH-PM488 DFF3D/CHIRP Combination Pocket Mount

This is a new size housing (12 LX 5 W X 3.5 H) that contains the DFF3D elements along with the same CHIRP elements contained in B265LH

CM488 housing
DFF3D array
1 kW B265LH
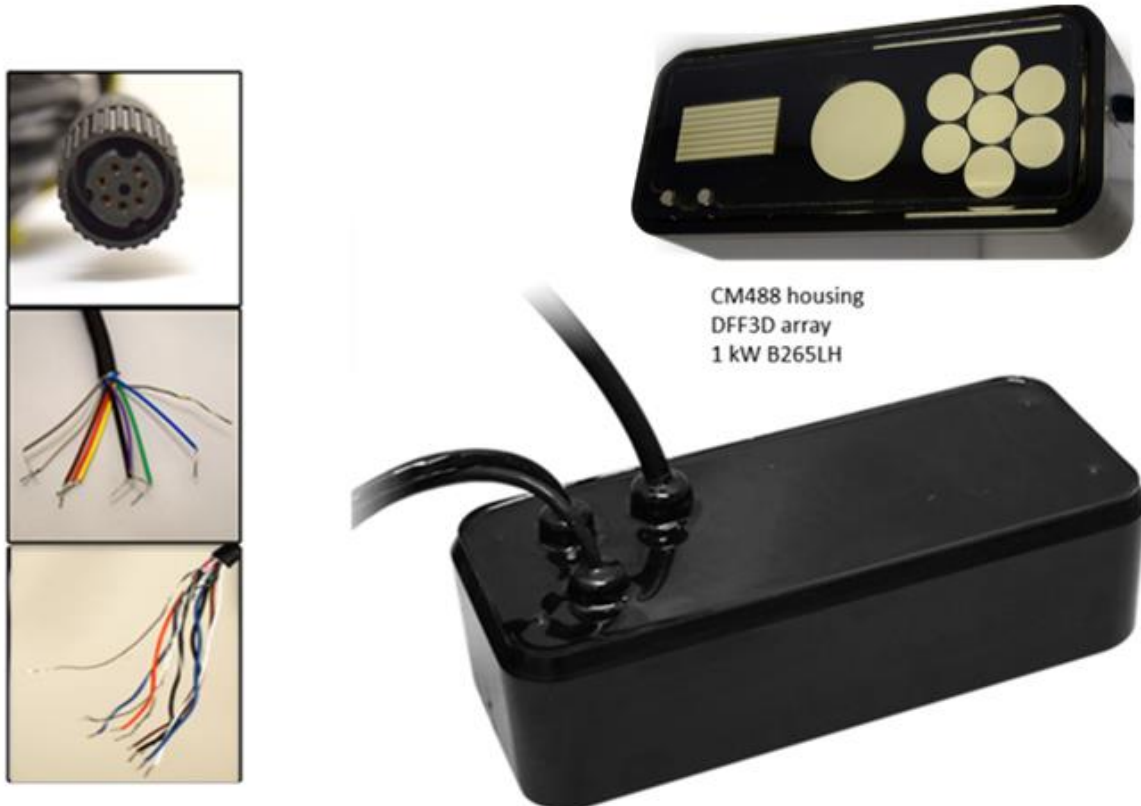
Standard Features

- DFF3D Elements (165khz)
- Low—CHIRPS from 42 kHz to 65 kHz, Beamwidth 25° to 16°
- High—CHIRPS from 130 kHz to 210 kHz, Beamwidth 10° to 6°
- Bottom discrimination and Accu-fish compatible (without TID)
- 12M Cables, Pigtail cable for DFF1-UHD, 7 pin connector and a pigtail cable for the DFF3D
- Recommended for a DFF1-UHD and DFF3D installation
- Built-in motion sensor
- Built in temp sensor

165T/265LH-PM488-12P DFF3D/CHIRP Combination Pocket Mount

This is the same transducer as the 165T/265LH-PM488 but it has a 12pin connector instead of a pigtail for connection to the internal Fish Finder of a TZT12F, TZT16F, or TZT19F. It contains the DFF3D elements along with the same CHIRP elements contained in B265LH

CM488 housing
DFF3D array
1 kW B265LH

Standard Features

- DFF3D Elements (165khz)
- Low—CHIRPS from 42 kHz to 65 kHz, Beamwidth 25° to 16°
- High—CHIRPS from 130 kHz to 210 kHz, Beamwidth 10° to 6°
- Bottom Discrimination and Accu-fish compatible (without TID)
- 12M Cables, 12Pin cable for TZT12F, TZT16F, and TZT19F, 7 pin connector and a pigtail cable for the DFF3D
- Recommended for a TZtouch3 MFDs (not TZT9F) and DFF3D installation.
- Built-in motion sensor
- Built in temp sensor

165T/275LH-PM488 DFF3D/CHIRP Combination Pocket Mount

This is a new size housing (12 LX 5 W X 3.5 H) that contains the DFF3D elements along with the same CHIRP elements contained in B275LHW

CM488 Housing
DFF3D Array
1kw B275LHW

Standard Features

- DFF3D Elements (165khz)
- Low—CHIRPS from 42 kHz to 65 kHz, Beamwidth 25° to 16°
- High—CHIRPS from 150 kHz to 250 kHz, Beamwidth 25°
- 12M Cables, Pigtail cable for DFF1-UHD, 7pin connector and a pigtail cable for the DFF3D
- Recommended for a DFF1-UHD and DFF3D installation
- Built-in motion sensor
- Built in temp sensor

165T/275LH-PM488-12P DFF3D/CHIRP Combination Pocket Mount

This is the same transducer as the 165T/275LH-PM488 but it has a 12pin connector instead of a pigtail for connection to the internal Fish Finder of a TZT12F, TZT16F, or TZT19F. It contains the DFF3D elements along with the same CHIRP elements contained in B275LH.

CM488 Housing
DFF3D Array
1kw B275LHW

Standard Features

- DFF3D Elements (165khz)
- Low—CHIRPS from 42 kHz to 65 kHz, Beamwidth 25° to 16°
- High—CHIRPS from 150 kHz to 250 kHz, Beamwidth 25°
- 12M Cables. 12pin cable for TZT12F, TZT16F, and TZT19F, 7pin connector and a pigtail cable for the DFF3D.
- Recommended for a TZtouch3 MFDs (Not TZT9F) and DFF3D installation.
- Built-in motion sensor
- Built in temp sensor

165T/PM542LM DFF3D/CHIRP Combination Pocket Mount

Low/Medium TruEcho CHIRP (30-60khz and 80-130khz), use with DI-FFAMP, FCV1900B, FCV295, FCV1150, or DFF3, and DFF3D Multi-Beam Sonar.

Standard Features

- DFF3D Elements (165khz)
- 2kw Low—CHIRPS from 30 kHz to 60 kHz, Beamwidth10° port/18° starboard beamwidth at the center of the band.
- 2kw Medium—CHIRPS from 80 kHz to 130 kHz, Beamwidth 13° to 8°
- 12M Cables, Pigtail cable for DI-FFAMP, 7pin connector and a pigtail cable for the DFF3D.
- Recommended for a DI-FFAMP, FCV1900B and DFF3D installation.
- Built-in motion sensor
- Built in temp sensor
- Previously called 165T/PM111LM

165T-50/200-TM260 DFF3D 50/200 Combination Transom Mount
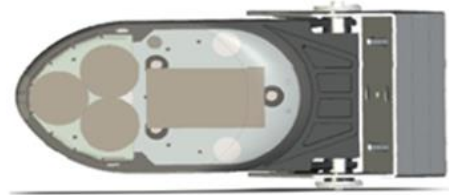
TM260 housing
DFF3D array
1 kW B164 50/200 kHz array

Standard Features

- DFF3D Elements (165khz)
- 1kW, 50/200 kHz, 20/6 ° beam angles for Fish Finder elements. Same as an AIRMAR B164 transducer.
- 12M Cables, with 10pin connector for Fish Finder, 7 pin connector for the motion sensors, and pigtail cable for the DFF3D elements.
- Recommended for a TZtouch2 or a TZtouch/DFF1, and DFF3D installation.
- Built-in motion sensor
- Built in temp sensor

DFF3D Transducer Extension Cable Kits

There are three available kits depending on the installation. One kit to extend a DFF3D installation that uses just the DFF3D transducer. The other two kits are for combo transducers. One kit for a DFF3D transducer along with a 50/200 CW transducer. The third kit is to extend the DFF3D transducer along with a CHIRP transducer.
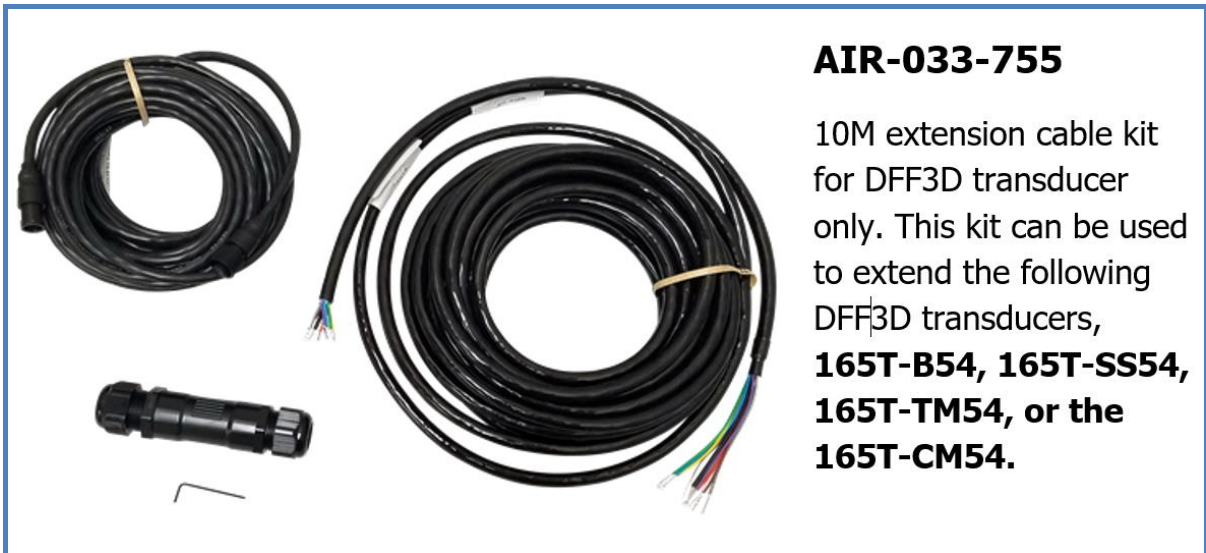
AIR-033-755

10M extension cable kit for DFF3D transducer only. This kit can be used to extend the following DFF3D transducers, **165T-B54, 165T-SS54, 165T-TM54, or the 165T-CM54.**


AIR-033-756

10M extension cable kit for DFF3D Combo that includes a 50/200 CW Transducer, such as the **165T-50/200-SS260**, or **165T-50/200-TM260**

AIR-033-757

10mextension cable kit for a DFF3D combo transducer that includes a CHIRP transducer such as the **165T/265LH-PM488, or the 165T/275LH-PM488.**

Note: To extend either the 165T/265LH-PM488-12P or the 165T/275LH-PM488-12P DFF3D Combo Transducers use part # AIR-033-755 and 12pin transducer extension cable (part # available May of 2021). These combo transducers include a 12pin connector for use with the TZT12F, TZT16F, or TZT19F.

Rev 3/24/2021

DFF3D B54 (Multi-Beam) Transducer Testing with Airmar TDT1000

Connect the Airmar breakout box to the TDT1000 tester. Connect the black wire of the B54 transducer to **POSITION 2** of the breakout box and any of the other colored transducer wires to **POSITION 11.**
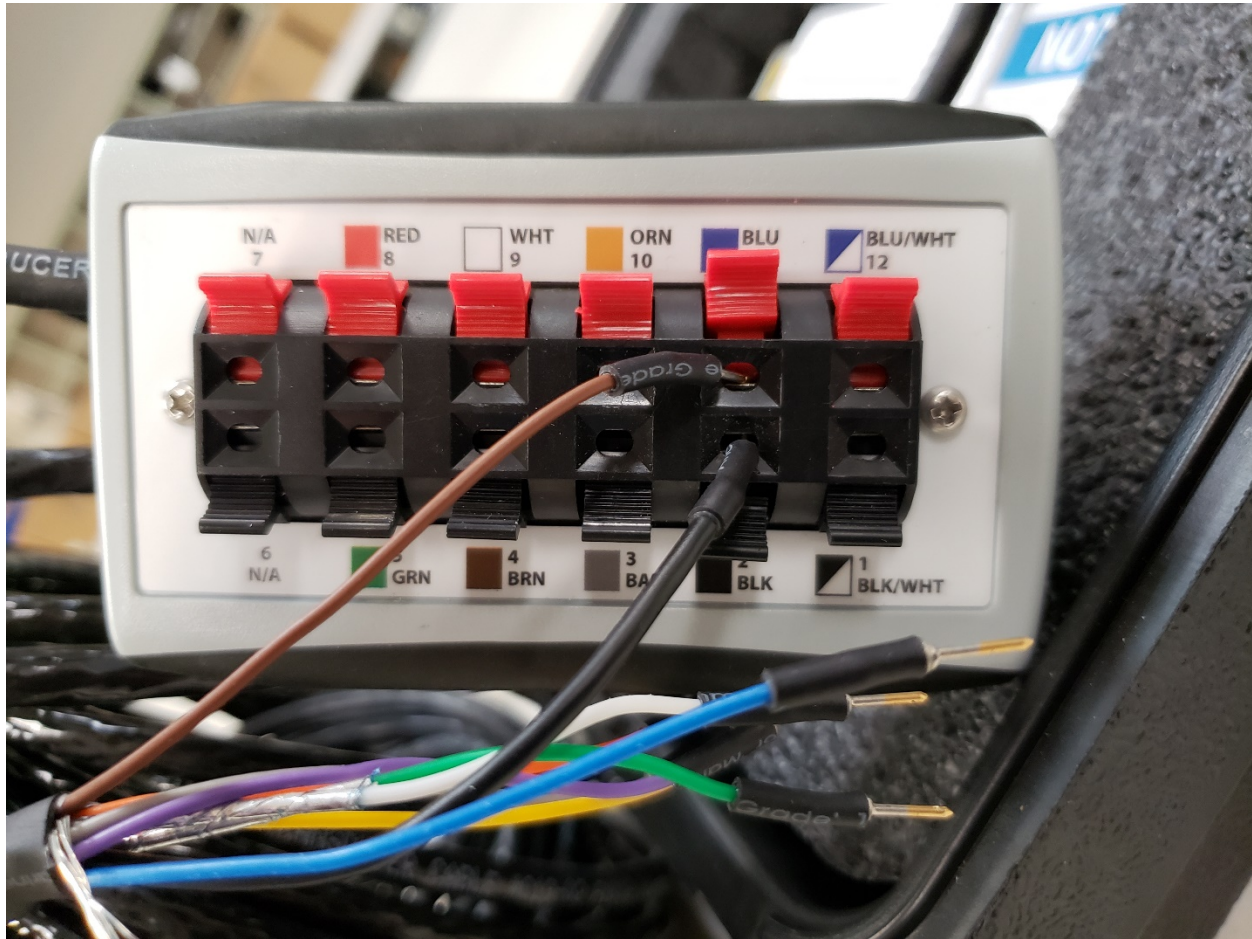

At present there is no reference data for this transducer stored in the TDT1000 so you will have to input testing parameters manually as follows.

Once a link is established with the TDT1000 press "START TEST"

After a moment the "DEFAULT TESTS" page will load. You will not use this page for the test.
Press the arrow in the upper left corner of the page to go back to the START page.
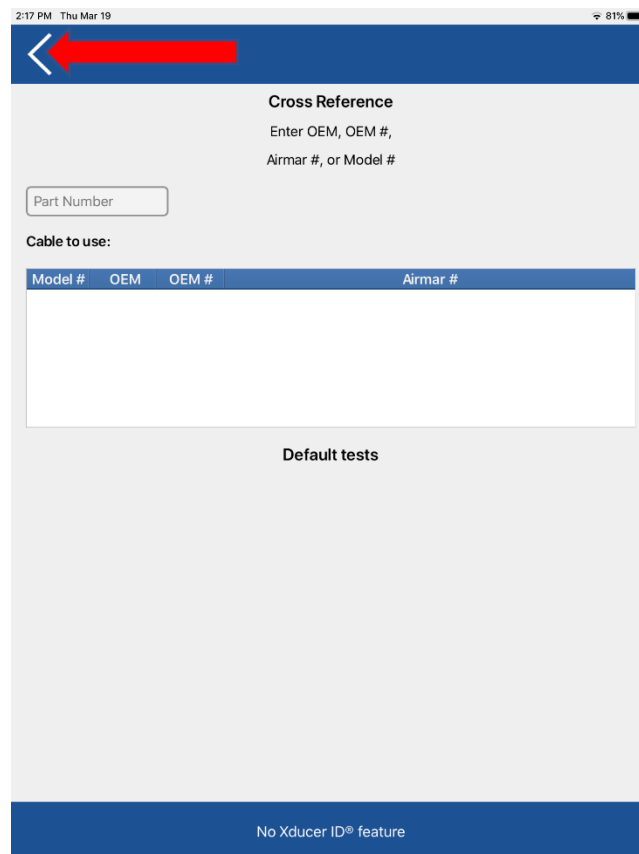
Press the menu icon in the upper left corner to display the menu options
Press "User-defined Measurements"

Once this page loads, enter the parameters as shown below:
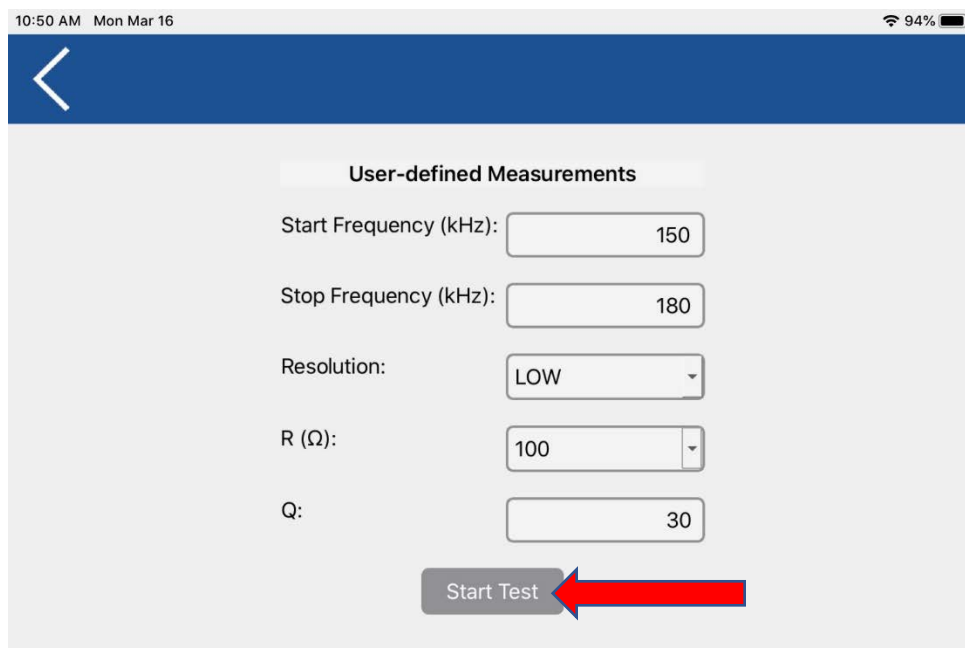
Press "Start Test" to run the test. You should get indications of "Calibrating" at the bottom of the screen and finally "Measuring". The whole process will take several moments. When finished you should have a curve something like the below.

Test Name: TD3

Model Number: kHz

No Reference Data

Frequency: kHz

Transducer Results
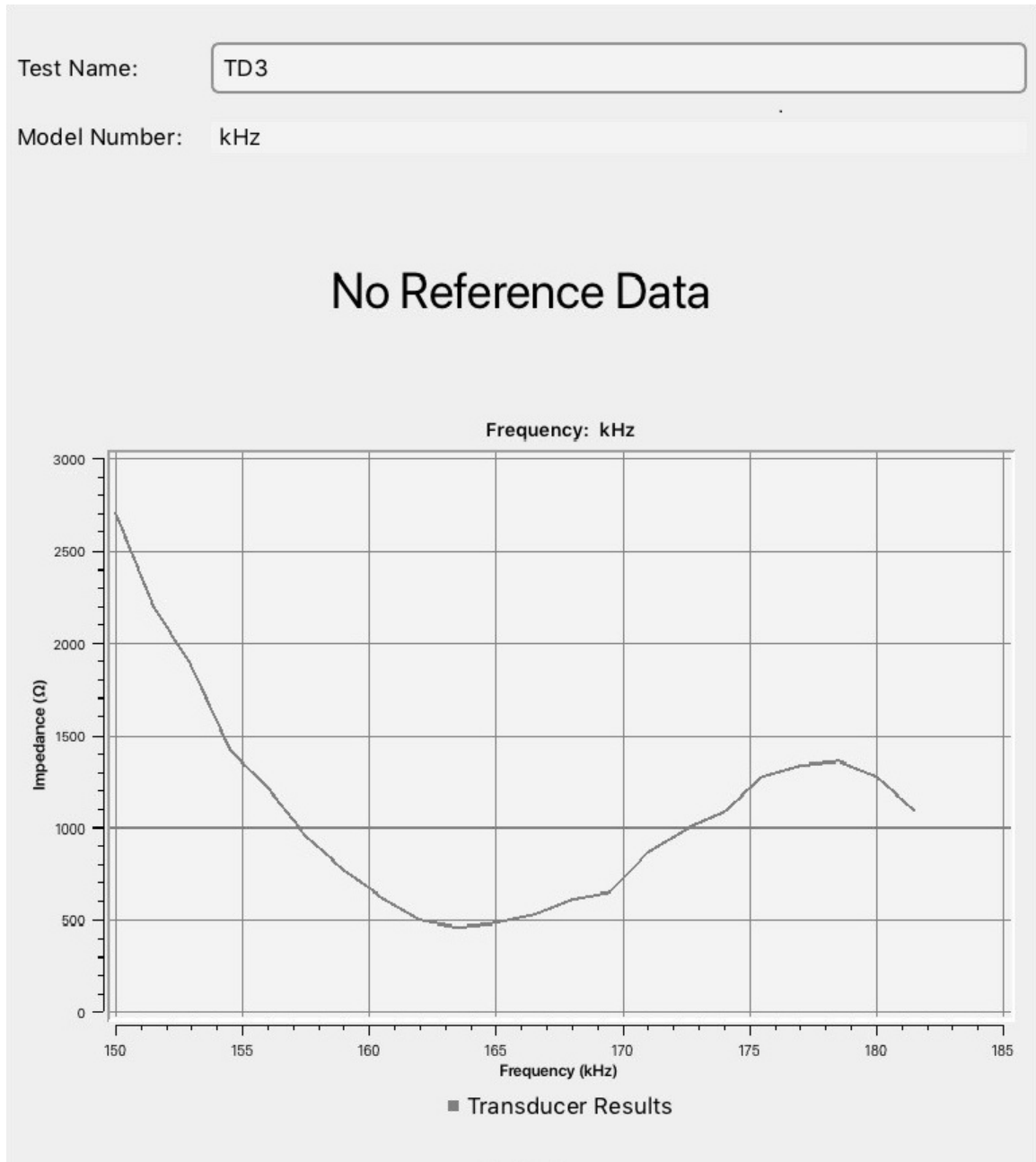
Repeat this procedure for each element by swapping in the next associated wire into **POSITION 11** of the breakout box. All elements should be close to the same curve shape. Please note that these readings were taken with the transducer placed on the Airmar Transducer Testing Block