UHF/VHF Radio
0.5W Transmitters

UHF RADIO TRANSMITTER 4052
VHF RADIO TRANSMITTER 4006

A short range real-time telemetering system for Aanderaa PDC-4 raw data signals from Automatic Weather Station 2700, Data Buoys and other monitoring stations.

Automatic weather stations and data buoys are normally placed far from inhabited areas. To convey data in real-time from these stations or buoys, UHF or VHF radio communication has been found to be a good and inexpensive solution.

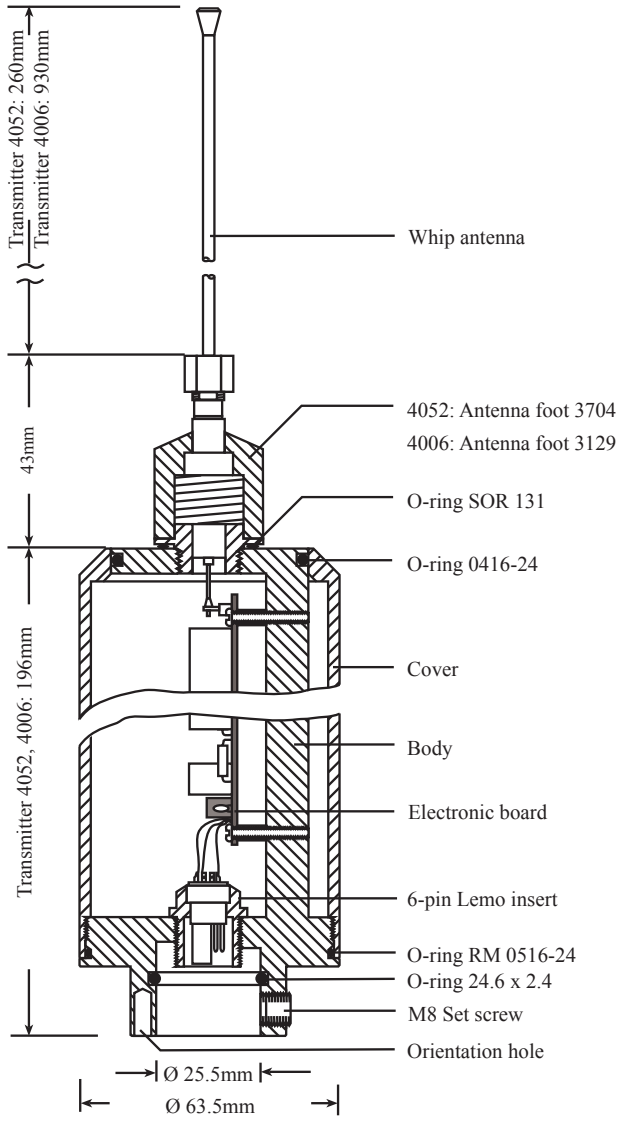
The radio set is a low power, short range system, operating in the UHF band on frequencies between 400 and 500MHz and VHF band on frequency 141 - 143MHz, and requires line of sight between the transmitter and the receiver to function properly. A typical application for the radioset is transmitting a message from an AADI Automatic Weather Station every 10 minutes. This message consists of a number of 10-bit data words and lasts for about 4 seconds per word.

The transmitters have a 2.5" OD aluminum housing with a half wave whip antenna on the top and a standard AADI sensor foot with a 6-pin receptacle at its lower end. The transmitter fits directly onto the AADI Sensor Cross Arm used on AADI Automatic Weather Stations and Data Buoys.

The antenna has a good low angle omnidirectional radiation pattern. The modulation type for the transmission is frequency modulation which allows the 10-bit PDC-4 Aanderaa code to modulate the transmitter directly.

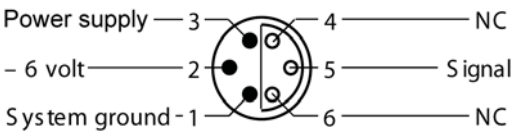
The range of the radio set varies with topography. On land and over uneven terrain a range of 100km is realistic provided line of sight. Over flat land and water the range is 12-16km with a normal antenna height.

Specifications UHF/VHF 0.5W



Pin configuration Transmitter 4052, 4006

Receptacle, external view; bushing = o ; Pin = ●



UHF Radio Transmitter 4052

RF module:	Woods & Douglas, SX 450GA
Type of transmission:	Frequency shift F1D
Frequency:	400 to 500MHz* channel spacing: 25KHz
Output power:	500mW max
Output impedance:	50Ω
Input impedance:	10kΩ
Current consumption:	Transmitting 400mA max
Temperature stability:	±5ppm
Net weight:	4052: 700g
Connection 3694:	Standard sensor foot with 6-pin receptacle mating Sensor Cross Arms 3415, 3435, 3465 and 3485

For installation on a 2" cone joint with 18-pin plug use Adapter 3715

VHF Radio Transmitter 4006

RF module:	Woods & Douglas, SX 150A
Type of transmission:	Frequency shift F1D
Frequency:	140MHz to 160MHz* channel spacing: 25KHz
Output power:	500mW max
Output impedance:	50Ω
Input impedance:	10kΩ
Current consumption:	Transmitting 400mA max
Temperature stability:	±5ppm
Net weight:	700g
Connection 3694:	Standard sensor foot with 6-pin receptacle mating Sensor Cross Arms 3415, 3435, 3465 and 3485

For installation on a 2" cone joint with 18-pin plug use Adapter 3715

UHF Radio Receiver 3696: refer D313

UHF Radio Repeater 3711: refer D313

VHF Radio Receiver 3839: refer D334

VHF Repeater 3842: refer D334

Common to all units

Material and finish:	Aluminum 6061T, anodized 10-15µ
Operating temperature:	–30 to +50°C
Power supply:	–7 to –14Vdc
Antenna:	Half wave vertical whip type with connector type N
Approval:	ETS 300 220, ETS 300 683, CE

**** Note:***
Concerning restrictions on use of this equipment, the responsibility for obtaining the applicable permission from the appropriate authorities remains solely with the user. Actual frequency will normally be specified by the same authority.

Post Box 34 SLÅTTHAUG
5851 BERGEN, NORWAY
TEL. +47 55 60 48 00
FAX. +47 55 60 48 01
http://www.aadi.no
e-mail: info@aadi.no

Representative's Stamp

AANDERAA DATA INSTRUMENTS