Christiaan Huygens Laboratorium



Artemis MK5 Engineering Note EN5-8

Modification IF Preamplifier (IPA) from version 02

Modification A

Purpose modification

To reduce the influence of the transmitter cross talk on the distance measurement (drifting of the distance), especially when the VSWR of the antenna is high, for instance when the antenna radome is wet.

Modification status: mandatory

The modification is mandatory, however, for stations or systems which work fine, even when the antenna(s) is (are) wet, it can be decided to not carry out the modification.

IPA units effected

All IPA units from of version 02 (serial no. YY-02XXX).

IPA units from of version 03 (serial no. YY-03XXX) will have the modification standard incorporated.

Modification designation: MOD A

- A new type and serial number label with "MOD A" after the serial number is affixed to the housing of the IPA, or a label with "MOD A" is affixed after the existing type and serial number label on the housing of the IPA. See photo overleaf.
- A label with "MOD A" is affixed under the existing type and serial number label of the two boards type A5IPAB of the IPA unit. See photo overleaf.

Modification description

- Remove transistor Q10.
- Remove resistor R32.
- Solder an inductor of 4.7 uH (Epcos, 90 mA, Rs 3.8 Ω) in the position of R32.
- Solder a link between the two most left points where transistor Q10 was positioned, so that one side of the inductor is connected to ground.

See figure overleaf.

Modification requirements

The modification requires the equipment and facilities for the soldering of SMD components.

Remark

A quantity of 4.7 uH inductors and a quantity of "MOD A" labels will be made available to Reson to modify IPAB boards and to mark the modification on the IPAB boards and on the IPA units.

Distribution

CHL NETHERLANDS B.V. : AKI, AKO, HEB, JMH, SHH

Reson B.V. : A. van Valkenhoef, S. Gillebaard, T. Mulyono, B. Bos, D. Doorschodt,

N. van Woerkom

Muco Technologies : G. van Leeuwen, M. van Aalst

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