

Christiaan Huygens Laboratorium



Artemis MK5 Engineering Note EN5-7

Modification Antenna Unit Processing (AUP) board

Modification A

Purpose modification

To reduce the influence of the transmitter cross talk on the distance measurement (drifting of the distance or even sometimes halting of the distance measurement), 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.

AUP boards effected

All AUP boards of version 01 (serial no. YY-01XXX) and version 02 (serial no. YY-02XXX). AUP boards 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 board's connector, or a label with "MOD A" is affixed after the existing type and serial number label.

Modification description

Soldering a 220 nF SMD capacitor across the following existing capacitors:

C161, C159, C171, C160, C712, C162, C168, C163, C167 (sum channel). C306, C304, C316, C305, C317, C307, C313, C308, C312 (dif channel).

The position of these capacitors is shown in the figure overleaf.

Note: It is essential that a 220 nF capacitor is soldered across the existing capacitors. Replacement of the existing capacitors by capacitors with a 220 nF higher value does not give the same result due to self-inductance effects.

Modification requirements

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

Remark

A quantity of 220 nF SMD capacitors and a quantity of "MOD A" labels will be made available to Reson to modify AUP boards.

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 B.V.	: G. van Leeuwen, M. van Aalst
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