

**ATP Clarification for the Host Macrovision Test
(Uni-Dir-ATP-I03-040315, § 2.1.5)**

UDCPs must comply with the electrical specifications for Macrovision certification. Manufacturers submitting UDCPs to CableLabs for verification must accordingly provide proof of Macrovision certification. Refer to PICS item HACP.2 in Uni-Dir-PICS-I01-030903. In addition, a UDCP must enable analog program copy protection to the NTSC outputs (composite, composite RF, S-video, and “Y of YPbPr”), in accordance with the [Macrovision] standard, for video services carried on a QAM channel, that require POD operation for reception. *Id.* In § 2.1.5 of the ATP, ‘verify’ means that “any video aberration that looks like Macrovision is present on the video signals, as viewed by an oscilloscope.”

There are 4 basic modes of Macrovision. The specific Macrovision mode to be used with a particular digital stream is defined in the APS code of the CCI bits as shown in Table 1 below.

Table 1. Mapping of APS Codes to Macrovision Modes

APS Code	Macrovision Mode	Mode Description
00	0	Macrovision off
01	1	AGC on
10	2	AGC + 2-line color stripe
11	3	AGC + 4-line color stripe

Section 2.1.5 describes the complete test procedure for validating that Macrovision is properly present on video signals. Essentially the test is performed by setting the APS Codes shown in Table 1 above, and then observing the analog output as shown in Table 2 below.

Table 2. Test Results: Host Macrovision Test Procedure

Measurement	Acceptable Result
Macrovision Mode 0 check	No Macrovision found in any NTSC output
Macrovision Mode 1 check	Mode 1 present in all NTSC outputs
Macrovision Mode 2 check	Mode 2 present in all NTSC outputs
Macrovision Mode 3 check	Mode 3 present in all NTSC outputs

A careful comparison of Tables 1 and 2 reveals that any non-zero condition for APS Codes *must* result in Macrovision Mode 1, 2, or 3. A product cannot be “verified” for compliance with this JTS if the UDCP “turns off” the NTSC output(s), thereby turning off Macrovision, as a response to a non-zero APS Code.

NTSC outputs are not required for UDCPs, and a manufacturer may choose not to include such analog outputs on its product(s). However, if analog outputs are included, those outputs must apply Macrovision in response to the APS Codes in the digital input signal as described above.