

# TDC NET

## TECHNICAL OPERATIONS MANUAL

**Document ID:** SOP-003

**Title:** Signal Level Adjustment Procedures

**Category:** Minor

**Equipment Types:** Casa C100G, Harmonic CableOS

**Applicable Fault Codes:** 100.1, 200.2, 300.5

**Last Updated:** 2025-10-04

### SIGNAL LEVEL DEVIATION - ERROR CODE 100.1

#### OVERVIEW:

Signal level deviations are common and usually indicate minor equipment drift or environmental changes. These issues rarely affect customer service but should be corrected to prevent escalation.

#### QUICK DIAGNOSTIC:

1. Check current signal levels on Casa C100G CMTS
2. Compare with baseline measurements from last maintenance
3. Identify if deviation is upstream or downstream
4. Check weather conditions and temperature logs

#### ADJUSTMENT PROCEDURE:

1. Access CMTS web interface or CLI
2. Navigate to RF configuration section
3. For downstream adjustment:
  - Modify output level in 0.5 dB increments
  - Target range: 45-50 dBmV at amplifier output
4. For upstream adjustment:
  - Adjust input attenuator settings
  - Target range: 0 to -10 dBmV at CMTS input

5. Allow 5 minutes for system stabilization
6. Verify modem registration levels

### **VERIFICATION:**

1. Confirm error code 100.1 clears within 10 minutes
2. Check that all modems remain online
3. Verify no new alarms generated
4. Document changes in maintenance log

ESTIMATED TIME: 30 minutes to 1 hour REQUIRED SKILLS: Basic RF knowledge, CMTS operation TOOLS REQUIRED: Signal level meter, laptop

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