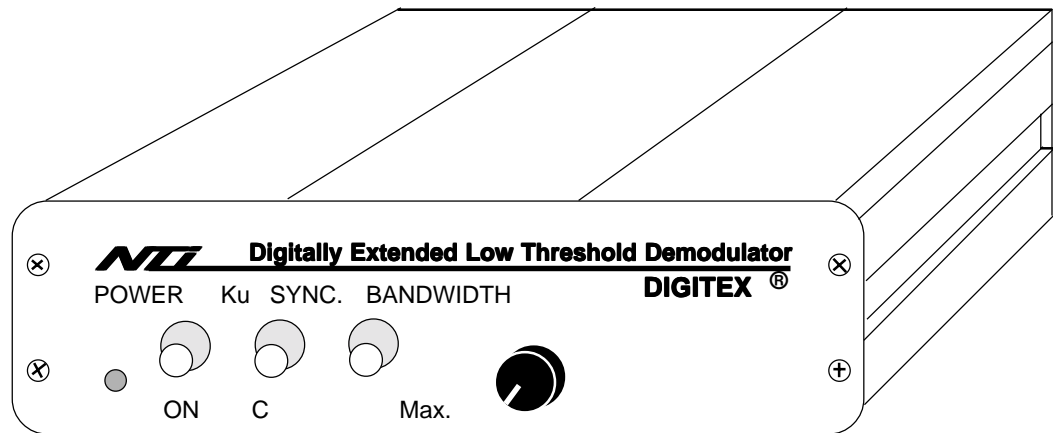


# INSTRUCTION Digitally Extended Threshold Demodulator • DIGITEX



## • **Please note:**

DIGITEX is a precision demodulator unit which needs for proper working some special conditions:

- *About 20 minutes "warm-up" period*
- *Exactly adjusted IF-input level (see "IF-INPUT")*
- *The satellite receiver's tuner must provide an automatic gain controlled (AGC) IF-signal)*
- *The external power supply must deliver min. 12V DC/400mA (see "Connectors DC")*

## • **Front Panel Controls**

### **Switch "POWER"**

This on/off switch controls power. In the ON position the green LED is illuminated.

### **Switch "Ku / C"**

This switch controls the polarity of the video and baseband output signal corresponding to the used satellite band (Ku-/C-band). In position "Ku" (11/12GHz) the signal is non inverted. In position "C" (4GHz) the signal is inverted.

### **Switch "SYNC."**

In case of very weak signal reception the synchronisation is also affected which makes the picture unstable. Therefore an artificial synchronisation could be activated (position SYNC.) which makes the picture stable.

**Please note if SYNC is activated:** When receiving very weak signals or after rapid tuning to another channel the vertical position may not lock in. In this case a black horizontal bare is watchable. To allow correct vertical synchronisation slowly tune the bandwidth control to minimum (right position) and then slowly tune back to correct bandwidth

For correct horizontal synchronisation the unit needs about 10 - 20 seconds for correct locking in. Within this period a grey slowly wandering vertical bare is watchable .

### **Control "BANDWIDTH"**

This control allows variable IF-bandwidth adjustment.

**Left position: maximum bandwidth**

**Right position: minimum bandwidth**

By decreasing the bandwidth the threshold extension is increased. When adjusted too small tearing edges would occur. When receiving very weak signals a compromise between sparklies reduction and the lengths of tearing edges has to be found.

**Please note:** With (activated) option SUPER FEEDBACK the total bandwidth range is from center position to right position of the bandwidth control. If the bandwidth is too wide the picture would be disturbed.

## • Rear Panel Controls and Connections

### "IF IN"

This is the input for the satellite receiver's IF signal. The input level must be in the range from -40 - -60dBm.

**To adjust the correct input level:**

- **Switch POWER: ON**
- **Switch SYNC. : OFF**
- **Switch Ku/C : corresponding to the used band**
- **Control BANDWIDTH: center position**
- **Control INPUT LEVEL: center position**

For this purpose feed a slightly noisy signal to DIGITEX. Connect a TV-monitor via VIDEO OUT. The ratio of white and black sparklies must be equal. If not retune the centerfrequency of the satellite receiver with it's tuning control. Tune the BANDWIDTH control to left position (maximum bandwidth). The amount of sparklies must increase. If not increase the input level by tuning the INPUT LEVEL control clockwise until the picture is becoming totally noisy. If the input level is too high large white or black areas would occur now in the picture. If so decrease the input level by tuning the control anti-clockwise until this effect disappears. There is an optimum point for INPUT LEVEL. If tuning the INPUT LEVEL anti-clockwise there is a point where the picture completely disappears. The optimum position is just before this point is reached.

To check-up the correct bandwidth control range tune the BANDWIDTH control slowly to right position (minimum). Sparklies should now disappear. Optimum position is just before minimum position is reached.

### Connector "BASEBAND OUT (MAC)"

This connector delivers an unclamped & unfiltered & nondeemphased baseband signal with an automatically controlled level of 1Vpp/75ohms. This signal is intended for connection of a decoder or or an extra sound processor.

### Connector "VIDEO OUT"

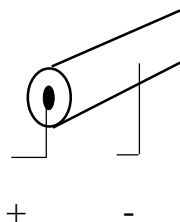
This connector delivers a clamped & filtered & deemphased (acc. CCIR-405) video signal for connection of a TV-monitor. The output level is also AGC-controlled to 1Vpp/75 ohms.

### Connectors "DC"

An external DC power supply is connected here. The both connectors are internally linked together so that a second device could be connected here without need of a second power supply.

**Please note:** Check that the polarity is correct (positive-inner, negative-outer) and that the voltage is between 12 and 15 volts. Current requirement is about 400mA.

### 2.1 mm Power Jack



#### **Please note:**

**The power supply must deliver a current of min. 400mA. If using a cheap power supply from far-east production choose a type with 1A=1000mA current. In our experience the most problems are caused by insufficient power supplies !**