ROHDE&SCHWARZ
BROADCASTING DIVISION

APPLICATION NOTE

Automatic Measuring in Standard M/PAL using a M/NTSC Video Analyzer UAF or Video Measurement System VSA

Products:

CCVS + COMPONENT GENERATOR	***SAF***
CCVS GENERATOR	***SFF***
VIDEO ANALYZER	***UAF***
VIDEO MEASUREMENT SYSTEM	***VSA***

7BM14_0E

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1. Select standard M/PAL. Insert into SAF or SFF Memory Card with testsignals according to NTC Combination and NTC Composite Signal or create these signals using SIGNAL EDIT (see also page 3).

2. Insert signals into Vertical Blanking Interval:

line number in M/PAL to be selected in SAF/SFF	line number in M/NTSC to be selected in UAF/UVF/VSA	signal acc. to NTC
14	A 17	NTCCOMBI.ULC
327	B 17	NTCCOMPO.ULC

3. Change subcarrier frequency in SAF/SFF from M/PAL to 3.579545 MHz acc. to M/NTSC .

4. You now may measure with the output signal of the SAF or SFF all parameters siutable to NTCCOMBI.ULC and NTCCOMPO.ULC in the standard M/PAL. But you should remember that the subcarrier frequency is the one of M/NTSC (the offset of 2511 Hz does not influence the measurement):

BAR
TILT
2T AMPL
LUM NL
BASELINE DIST.
2T K FACTOR
C/L GAIN
C/L DELAY
DIFF. GAIN / PHASE
CNL GAIN / PHASE
MULTIBURST
S/N
HUM

additionally also
SYNC / BURST AMPLITUDE

Dataset for Signal NTC7 Composite (NTCCOMPO.ULC)

SIN^2-TRANSITION	12.000 µs	200 ns	300 ns	700.0 mV	0.0 mV	0.0°
SIN^2-TRANSITION	30.000 µs	200 ns	300 ns	0.0 mV	0.0 mV	0.0°
MOD. PULSE	34.000 µs	250 ns	700 mV	0.0 m V	0 °	
MOD. PULSE	37.500 µs	1570 ns	350 mv	700 mV	0 °	
SIN^2-TRANSITION	42.000 µs	200 ns	1000 ns	0.0 mV	280.0 mV	0.0°
SIN^2-TRANSITION	46.000 µs	200 ns	1000 ns	126.0 mV	280.0 mV	0.0°
SIN^2-TRANSITION	49.000 µs	200 ns	1000 ns	252.0 mV	280.0 mV	0.0°
SIN^2-TRANSITION	52.000 µs	200 ns	1000 ns	378.0 mV	280.0 mV	0.0°
SIN^2-TRANSITION	55.000 µs	200 ns	1000 ns	504.0 mV	280.0 mV	0.0°
SIN^2-TRANSITION	58.000 µs	200 ns	1000 ns	630.0 mV	280.0 mV	0.0°
SIN^2-TRANSITION	61.000 µs	200 ns	1000 ns	630.0 mV	0.0 mV	0.0°
SIN^2-TRANSITION	62.000 µs	200 ns	1000 ns	0.0 mV	0.0 mV	0.0°

Dataset for Signal NTC7 Combined (NTCCOMBI.ULC)

SIN^2-TRANSITION	12.000 µs	200 ns	300 ns	700.0 mV	0.0 mV	0.0°
SIN^2-TRANSITION	16.000 µs	200 ns	300 ns	350.0 mV	0.0 mV	0.0°
FREQ. BURST	18.000 µs	4.000 µs	100 ns	500 kHz	0°	350.0 mV
FREQ. BURST	24.000 µs	3.000 µs	100 ns	1000 kHz	0°	350.0 mV
FREQ. BURST	28.000 µs	3.500 µs	100 ns	2000 kHz	0°	350.0 mV
FREQ. BURST	32.000 µs	3.500 µs	200 ns	3000 kHz	0°	350.0 mV
FREQ. BURST	36.000 µs	3.500 µs	300 ns	3580 kHz	0°	350.0 mV
FREQ. BURST	40.000 µs	4.000 µs	500 ns	4200 kHz	0°	350.0 mV
SIN^2-TRANSITION	46.000 µs	200 ns	400 ns	350.0 mV	140.0 mV	0.0°
SIN^2-TRANSITION	50.000 µs	200 ns	400 ns	350.0 mV	280.0 mV	0.0°
SIN^2-TRANSITION	54.000 µs	200 ns	400 ns	350.0 mV	560.0 mV	0.0°
SIN^2-TRANSITION	60.000 µs	200 ns	400 ns	350.0 mV	0.0 mV	0.0°
SIN^2-TRANSITION	62.000 µs	200 ns	400 ns	0.0 mV	0.0 mV	0.0°

Additional Information

Our Application Notes are regularly revised and updated. Check for any changes at http://www.rohde-schwarz.com.

Please send any comments or suggestions about this Application Note to Broadcasting-TM-Applications@rohde-schwarz.com.