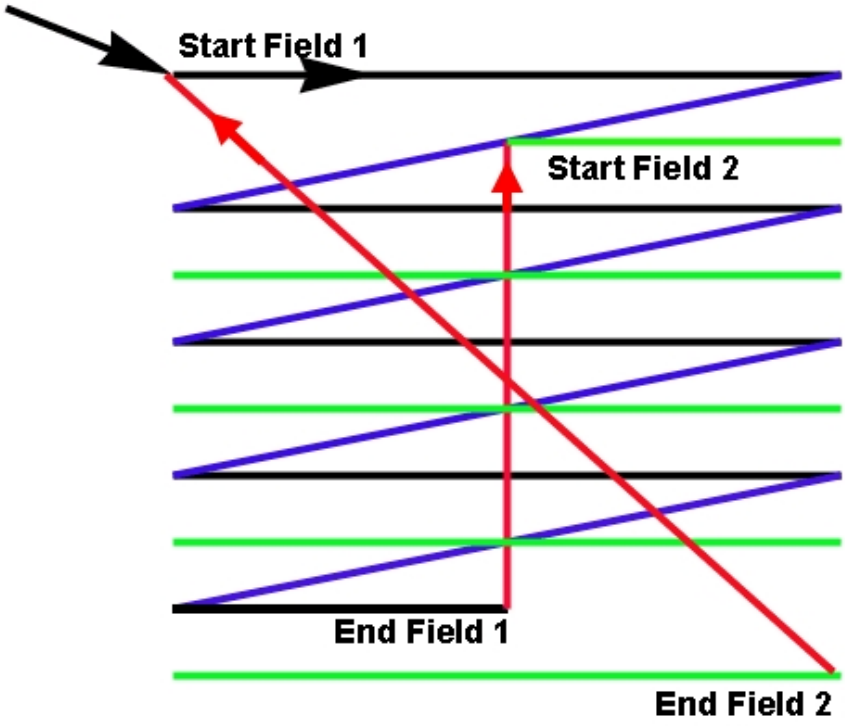
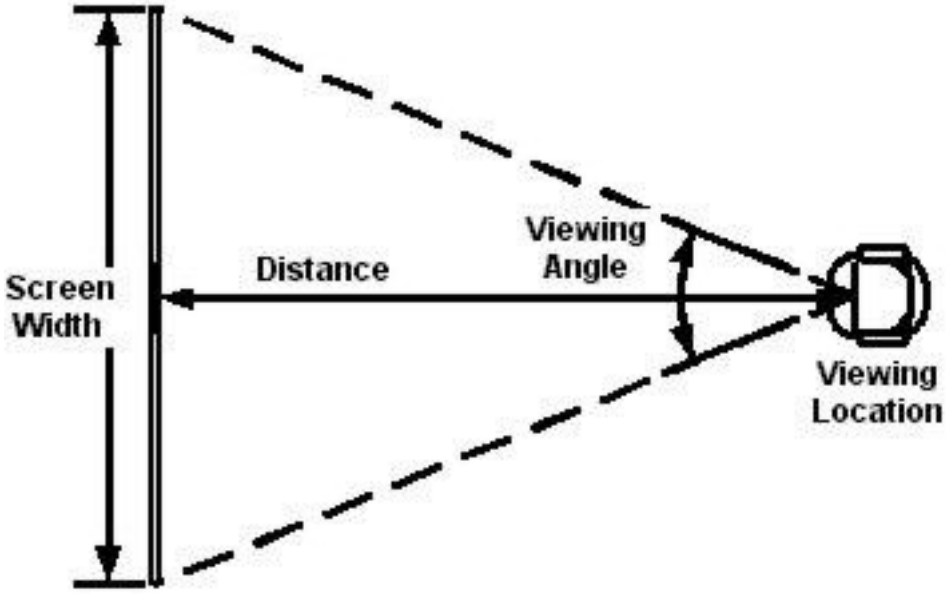


1

{pub}** Please Login to read more ... {/pub} {reg}
{reg} **(Aspect Ratio)**



2

50

360 = 2¶R

□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ 10 □□□□□ = 2¶R x 10/360
□□ □□□□□□

30 = 2¶R x 10/360

R = (30 x 7 x 360) / (2 x 22 x 10) = 171.8 cm

□□□□□□□ 171.8 □□□□□□□□□□□□ □□□□□ 1.7 □□□□□ □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

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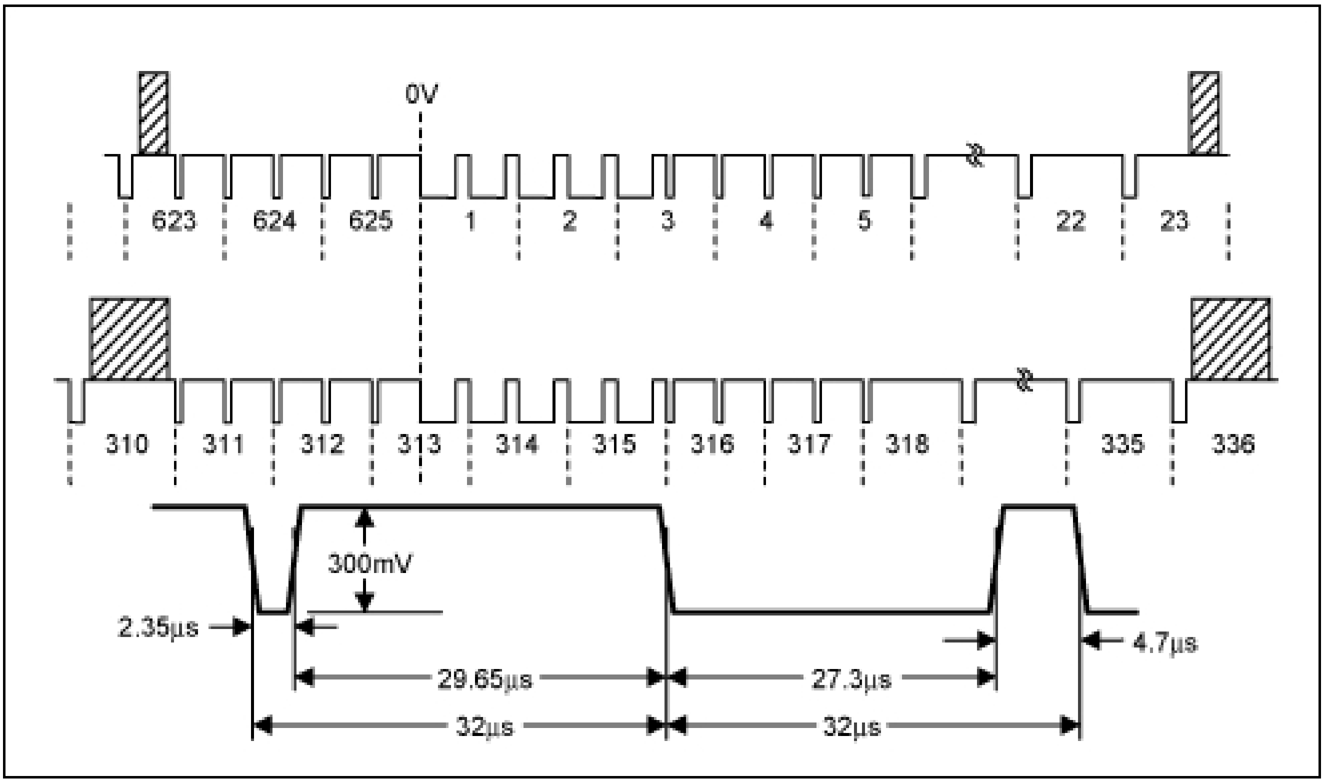


□□□□□□□ 3 □□

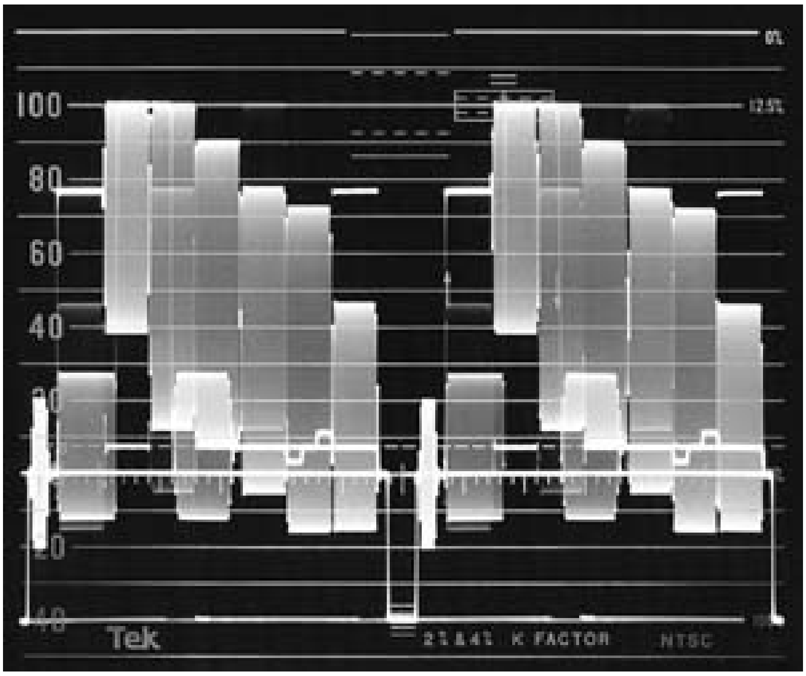
□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ (Visual Resolution & Bandwidth)

□□□ (format res

□□□□□□□□□ □□ 525/60 = 485 x0.7 =

□□ 625/50 = 575 x0.7 = 40

4:3
525/60 = 339.5x4/3 = 452.6
625/50 = 402.5x4/3 = 536.6



4

()
= 52/268 = 0.1940
f = 1/t = 1/0.194 = 5.15MHz
MHz = 402/5.15 = 78

5 MHz CCIR
VHS 240
NTSC 4.2 MHz

1.
2.
3.

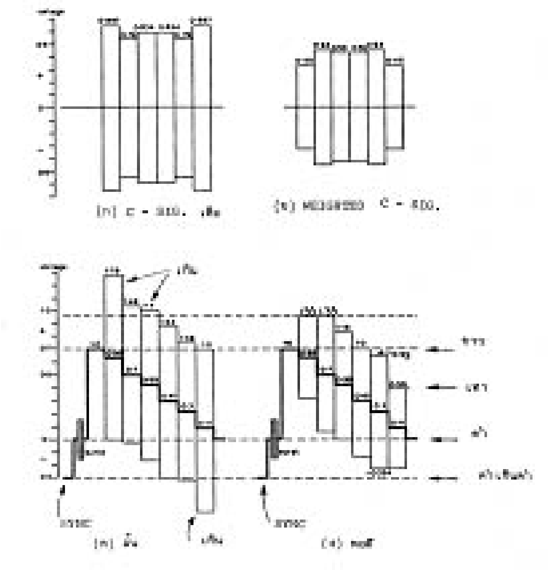
YUV

Y = 0.30R + 0.59G + 0.11B (R= , G= , B=

	R	G	B	Y	R-Y	B-Y	G-Y
Yellow	1.0	1.0	0	0.89	0.11	-0.89	0.11
Cyan	0	1.0	1.0	0.7	-0.7	0.3	0.3
Green	0	1.0	0	0.59	-0.59	-0.59	0.41
Magenta	1.0	0	1.0	0.41	0.59	0.59	-0.41
Red	1.0	0	0	0.3	0.7	-0.3	-0.3
Blue	0	0	1.0	0.11	0.11	0.89	-0.11
ค่าเฉลี่ยไม่คิดเครื่องหมาย					0.47	0.59	0.27

1 Y, R,G, B

Y, R-Y, B-Y R, G, B

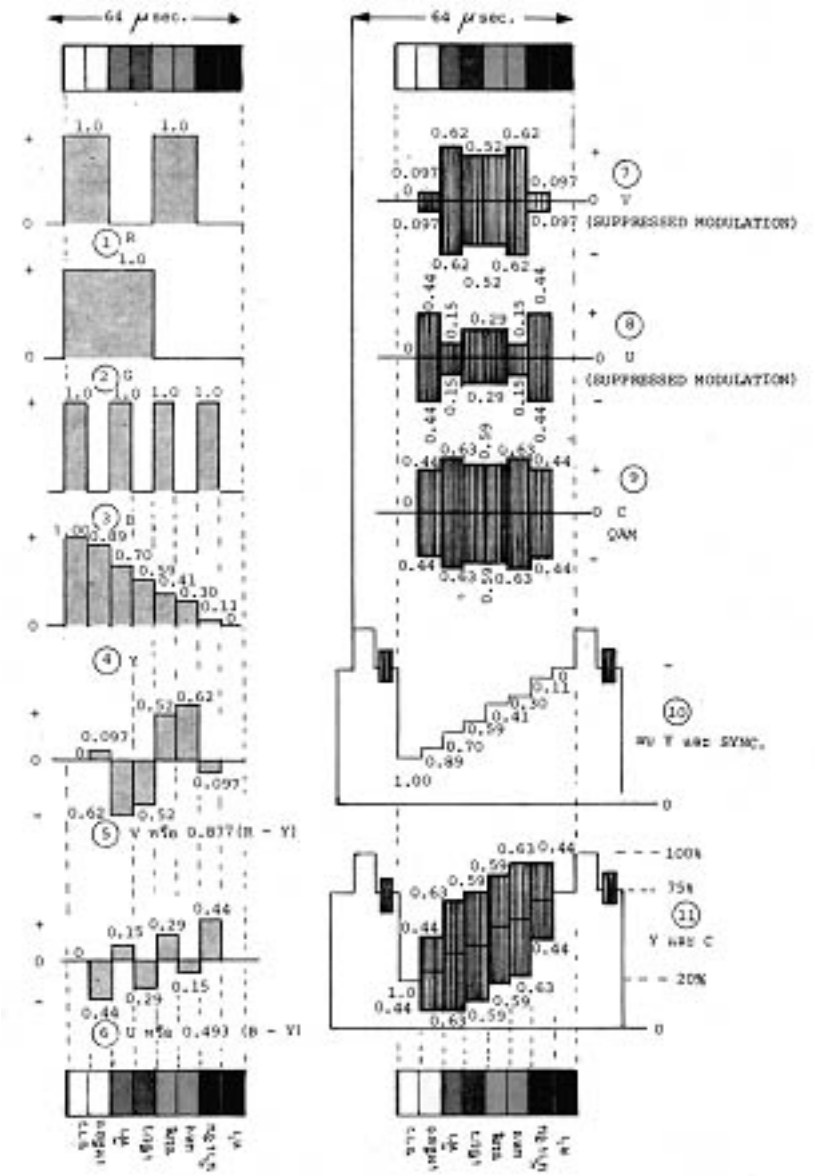


□□□□□□□ 5 □□

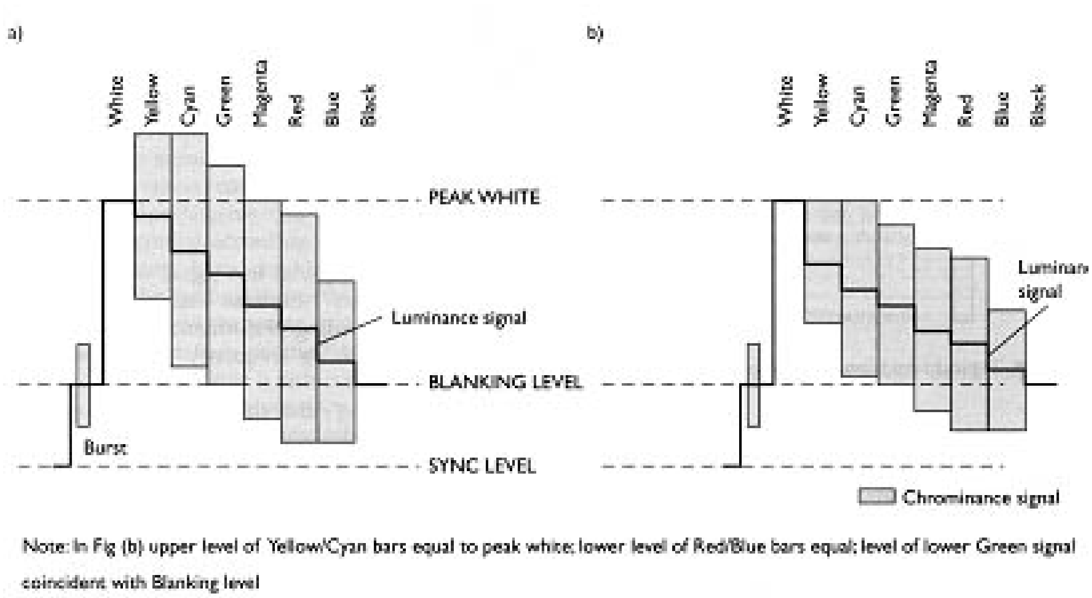
□□□□□□□□ R-Y □□□□ B-Y □□
□□□□□□□□□□□□□□□□□□ □□□□□□□□□□□□□□□□ (color bar) □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

	R	G	B	Y	R-Y	B-Y	V	U	C	Y/C
White	1.0	1.0	1.0	1.0	0	0	0	0	0	1
Yellow	1.0	1.0	0	0.89	0.11	-0.89	0.097	-0.44	0.44	1.33
Cyan	0	1.0	1.0	0.7	-0.7	0.3	-0.62	0.15	0.63	1.33
Green	0	1.0	0	0.59	-0.59	-0.59	-0.52	-0.29	0.59	1.18
Magenta	1.0	0	1.0	0.41	0.59	0.59	0.52	0.29	0.59	1.00
Red	1.0	0	0	0.3	0.7	-0.3	0.62	0.15	0.63	0.93
Blue	0	0	1.0	0.11	0.11	0.89	-.097	-0.44	0.44	0.53
Black	0	0	0	0	0	0	0	0	0	0

□□□□□□□□□ 2 □□□ PAL


64 μsec.
64 μsec.
(SUPPRESSED MODULATION)
(SUPPRESSED MODULATION)
100%
75%
20%

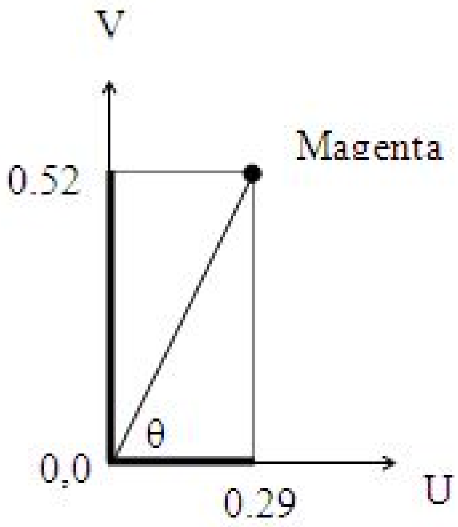
□□□□□□ 6 □□□□□□□□□□□□□□□□ □ □□□□□□□□□□□□□ PAL



□□□□□□□ 7 □□□ (a) 100% Saturati

* □□□□□□□□□□ □□□□□□□□□□□□□□□□□□ EBU □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□/□□□□□□

□□□□□□□□□□□□□□□□□
□□ V (R-Y □□□□□□□□□□□□□□□□□□□□□□

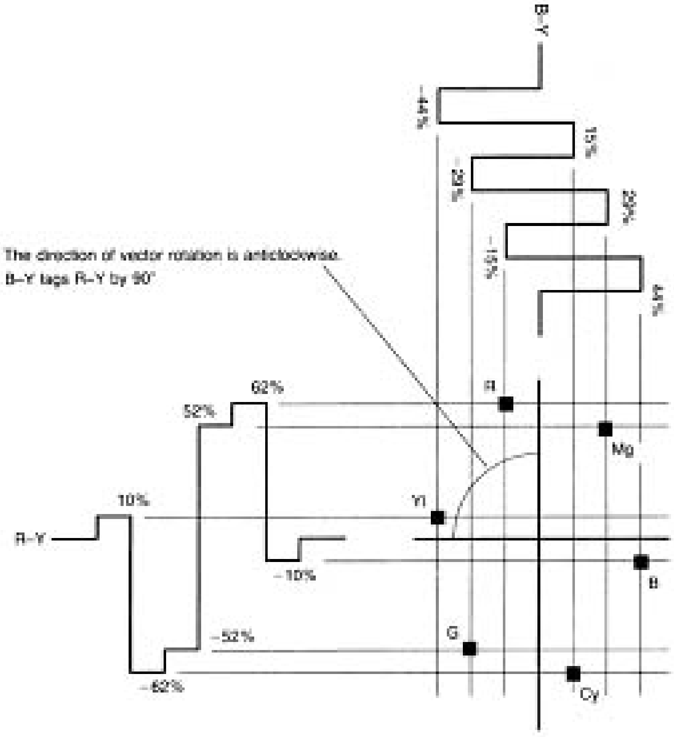


C = sqr(0.522 + 0.292) = 0.59

tan-1 0.52/0.29 = 60.8*

□□□□□□□ 8 □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ V □□□ U

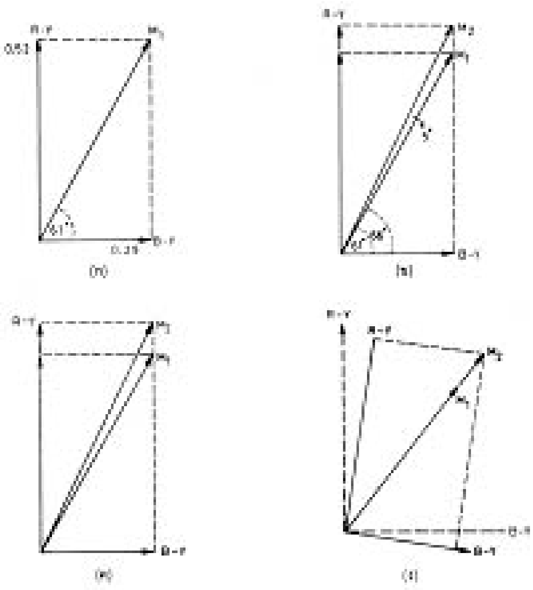
□□□□□□□□□□ □□□□□□ V □□□ U □□□□□□□□□□□□□□□□□□□□□□ □ □□□□□□□□□□□


B–Y
–44%
15%
–29%
29%
–15%
44%
The direction of vector rotation is anticlockwise.
B–Y lags R–Y by 90°
62%
52%
10%
R–Y
–10%
–52%
–62%
R
Mg
Yl
B
G
Cy

[illegible] 9 [illegible]

[illegible]

[illegible]



□□□□□□ 10 □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ NTSC

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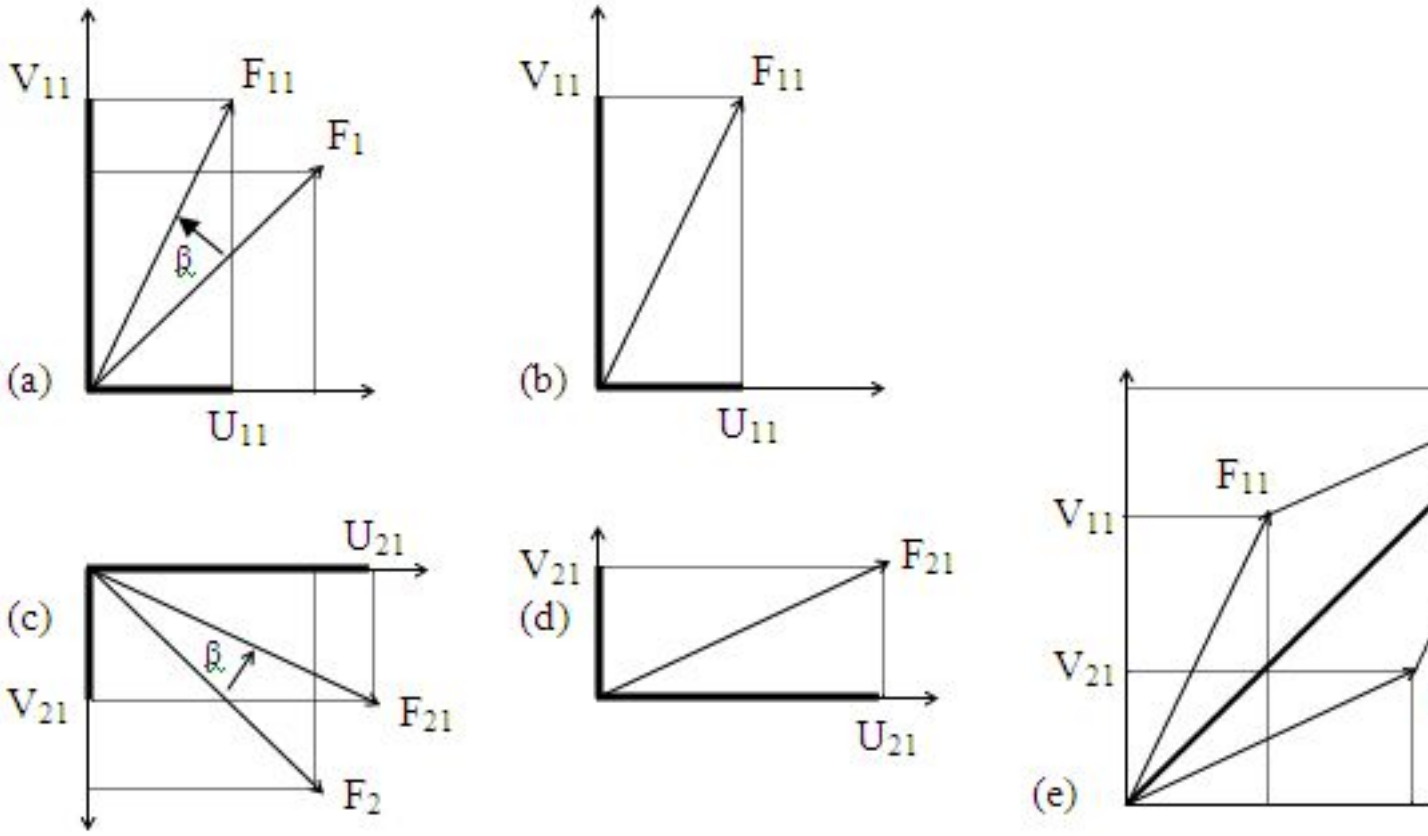
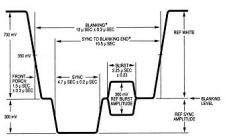
□□□□ PAL (Phase Alternate by Line) □□□□□□□□□□□□□□□□□□□□□□□□□□□□

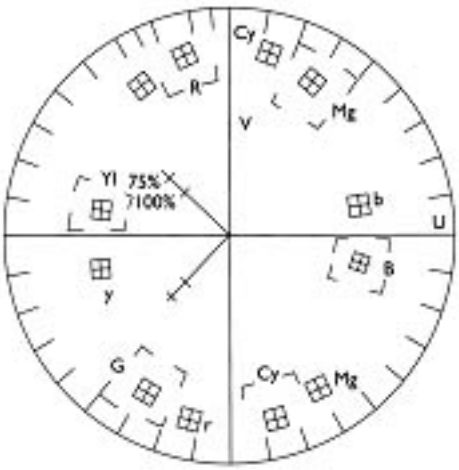


□□□□□□ 11 □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ PAL

□□□□□□□□□□ 11 (a) □□□□□□□□□□□□□□□□□□□□ F1 □□□□□□□□□ V □□□□□□ U
□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ F11 □□□□□□ (b) □□□□ F21 □□□□□□ (d) □
□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ PAL □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

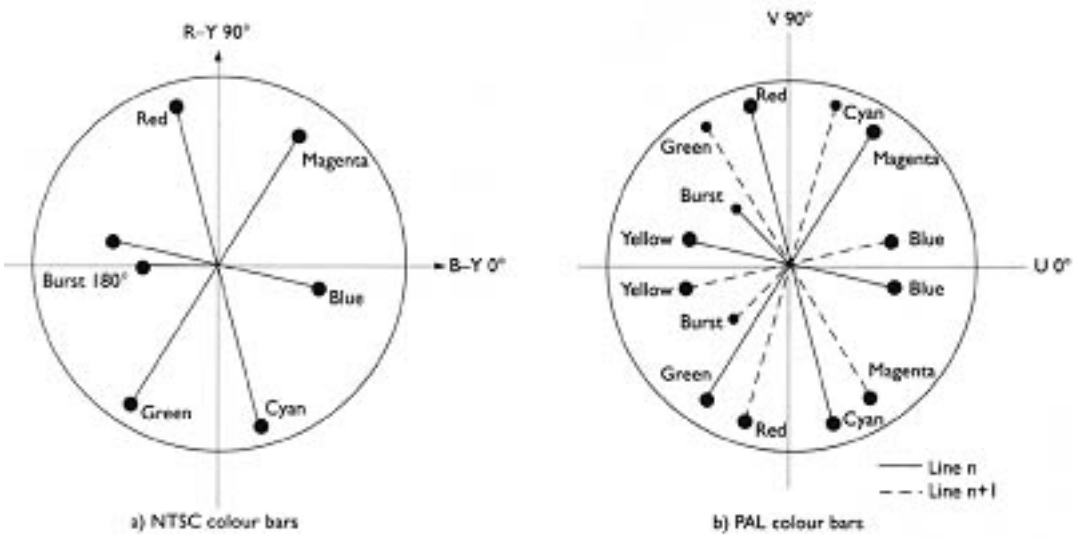


□□□□□□ 12 □□ PAL

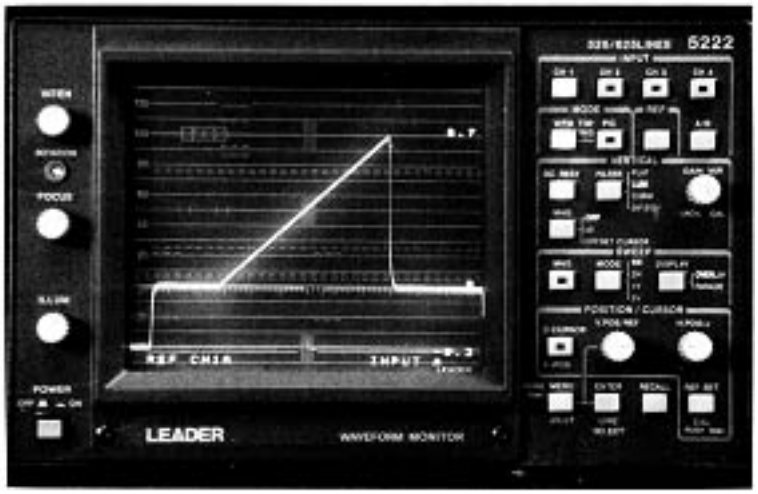


13 (Graticule)

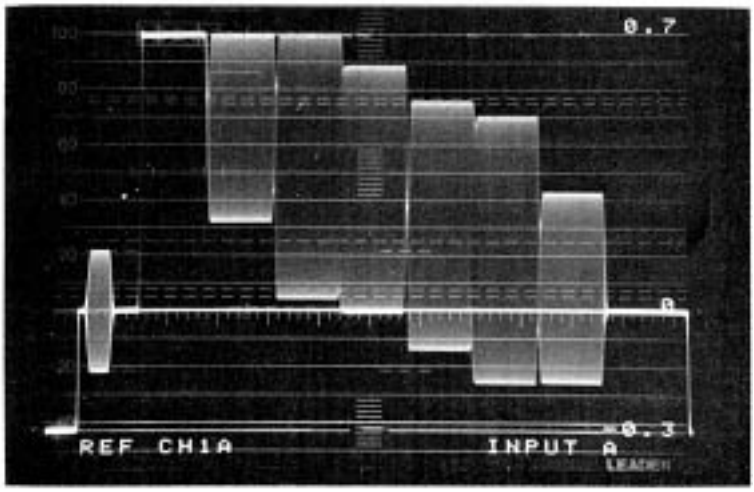
14



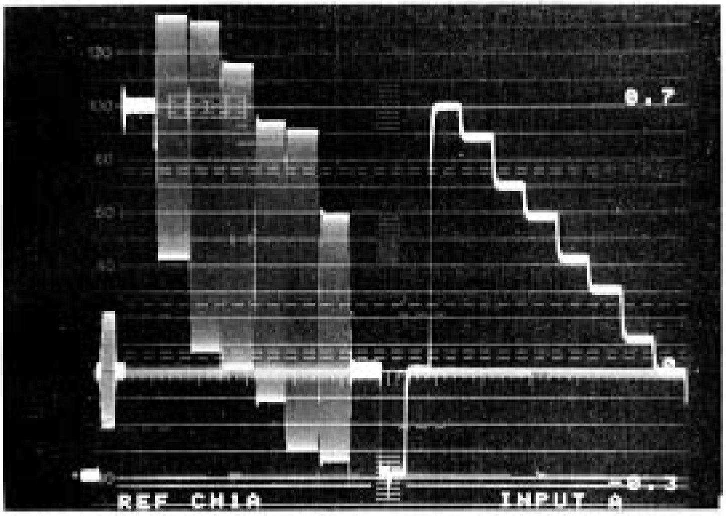
14 NTSC PAL


5222
LEADER
WAVEFORM MONITOR
REF CH1A
INPUT A

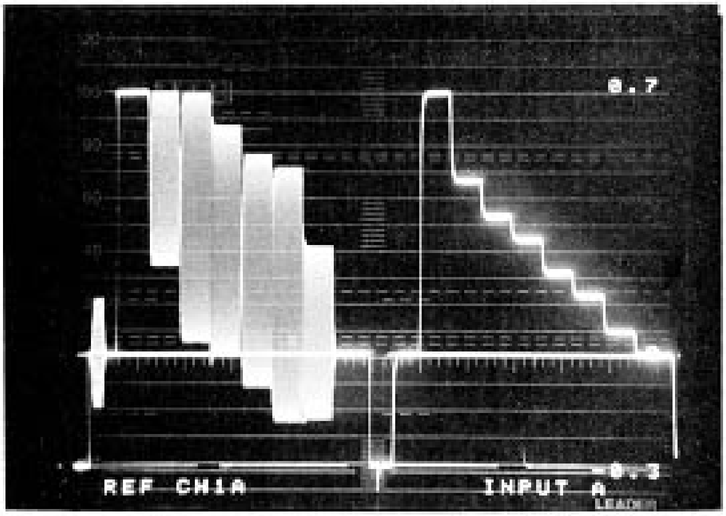
15


0.7
REF CH1A
INPUT A
LEADER

16 75%



(a)



(b)

[illegible] 17 [illegible]

[illegible] 15-17 [illegible]

- [illegible] (Black Level)
  [illegible] 15-17 [illegible] 0 [illegible]
- [illegible] (Peak White)
  [illegible] [illegible]

[illegible] [illegible]

[illegible]

[illegible]

[illegible] ITV [illegible]

References:

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- Peter Hodges, Focal Press, “Video Measurement”
- Peter Ward & Alan Bermingham, Focal Press, “Multiskilling for Televisior
- Michael Robin, Broadcast Engineering, Sep 1, 2002, “Video Resolution:T
- [illegible], [illegible], “[illegible]
- [illegible] [illegible]. [illegible]. [illegible]. [illegible], [illegible]
- [illegible], [illegible], “[illegible]” {