

## **EXHIBIT C: MANUFACTURER ANTENNA PLOTS**

Exhibit C presents the manufacturers +/- 9 degree antenna plots. These plots indicate both an older mask (based upon 2008 and earlier editions of 47CFR Part 25.209; applied to the antenna plot by the antenna manufacturer) and an updated mask (based upon the 2009 edition of 47CFR Part 25.209; applied to the antenna plot by GCI). The 2009 regulations 25.209 (1) states that the mask will be  $29-25\log_{10}\theta$  dBi for  $1.5^\circ \leq \theta \leq 7^\circ$  for Ku-band antennas.

GAIN: 42.0 dBi

Horizontal Polarisation

Elevation cut  $\phi^\circ$  = 0

Frequency = 14.0 GHz

dB Scale = 40 dB

Angular scale =  $\pm 9^\circ$

Pattern No. = 16

REF: 1543 REF: 1544

Correctly applied 25.209 mask  
(2009 rules).  
 $29-25\log(\theta)$  dBi  $1.5 \leq \theta \leq 7$   
8 dBi  $7 \leq \theta \leq 9.2$

RELATIVE POWER (db)

29-25 (Log  $\theta$ )

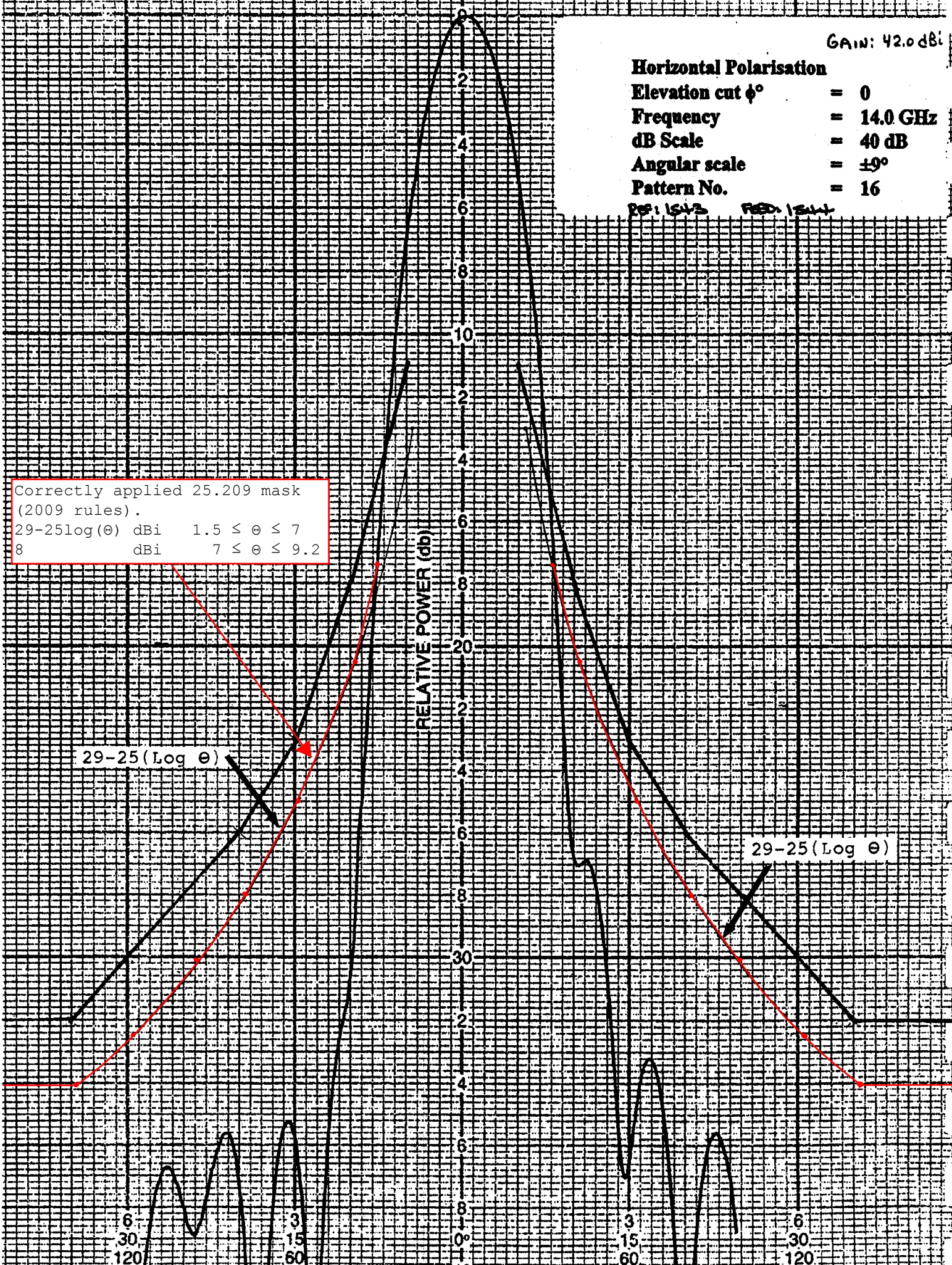
29-25 (Log  $\theta$ )

6  
30  
120

3  
15  
60

3  
15  
60

6  
30  
120



GAIN: 42.0 dBi

Vertical Polarisation  
Azimuth cut  $\phi^\circ$  = 90  
Frequency = 14.0 GHz  
dB Scale = 40 dB  
Angular scale =  $\pm 9^\circ$   
Pattern No. = 3  
Ref: 1543 Feed: 1544

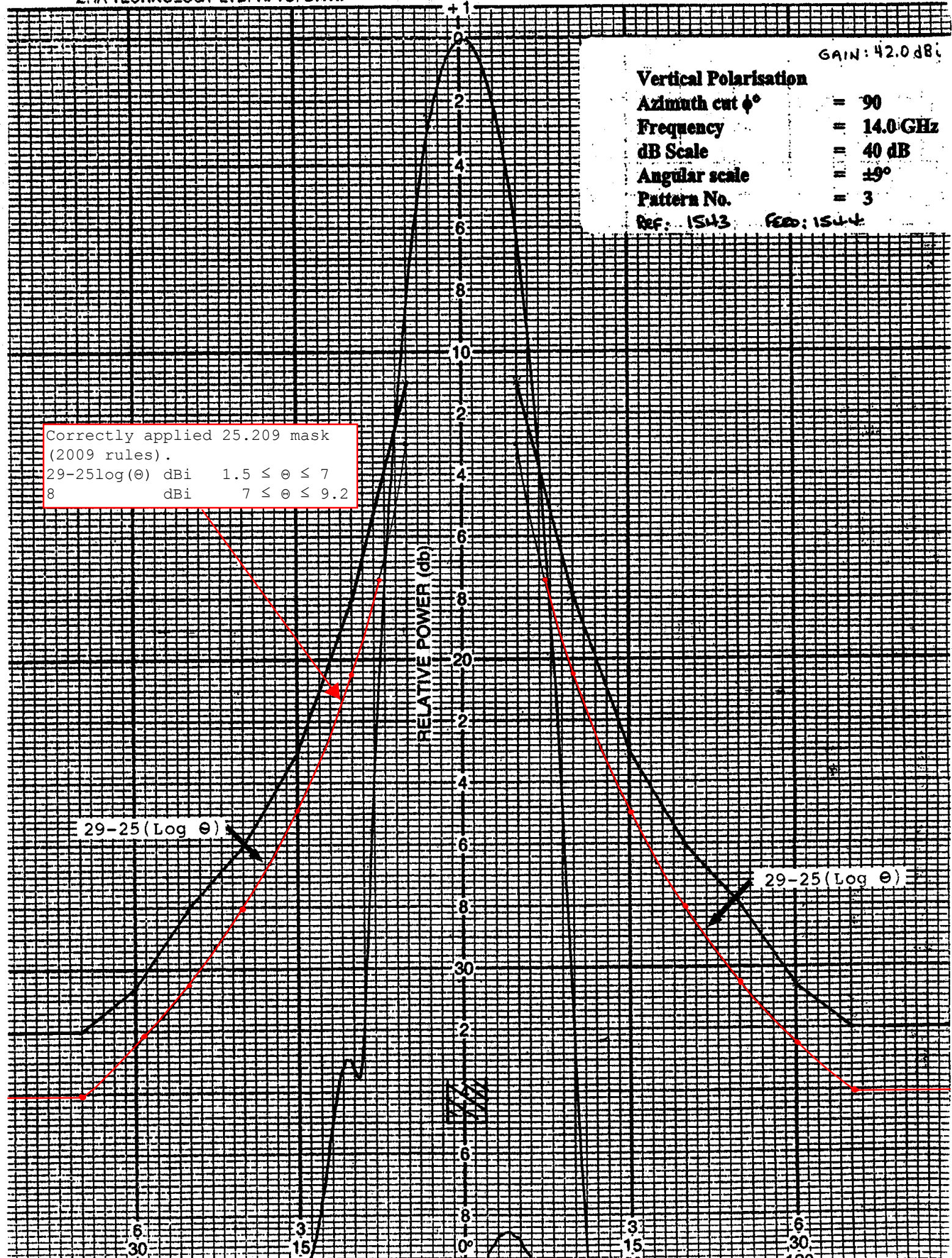
Correctly applied 25.209 mask  
(2009 rules).  
29-25log( $\theta$ ) dBi  $1.5 \leq \theta \leq 7$   
8 dBi  $7 \leq \theta \leq 9.2$

RELATIVE POWER (db)

29-25(Log  $\theta$ )

29-25(Log  $\theta$ )

6.1 3.1 3.0 3.1 6.1 3.1 3.0 6.1  
-30 -15 0 15 30



GAIN: 42.0 dBi

Horizontal Polarisation

Elevation cut  $\phi^\circ$  = 0

Frequency = 14.25 GHz

dB Scale = 40 dB

Angular scale =  $\pm 9^\circ$

Pattern No. = 17

Ref: 1543, Rev: 1544

Correctly applied 25.209 mask  
(2009 rules).  
29-25log( $\theta$ ) dBi  $1.5 \leq \theta \leq 7$   
8 dBi  $7 \leq \theta \leq 9.2$

RELATIVE POWER (db)

29-25(Log  $\theta$ )

29-25(Log  $\theta$ )

6

30

120

3

15

60

3

15

60

6

30

120

1

GAIN: 42.0 dBi

Vertical Polarisation  
Elevation cut  $\phi^\circ$  = 0  
Frequency = 14.25 GHz  
dB Scale = 40 dB  
Angular scale =  $\pm 9^\circ$   
Pattern No. = 9

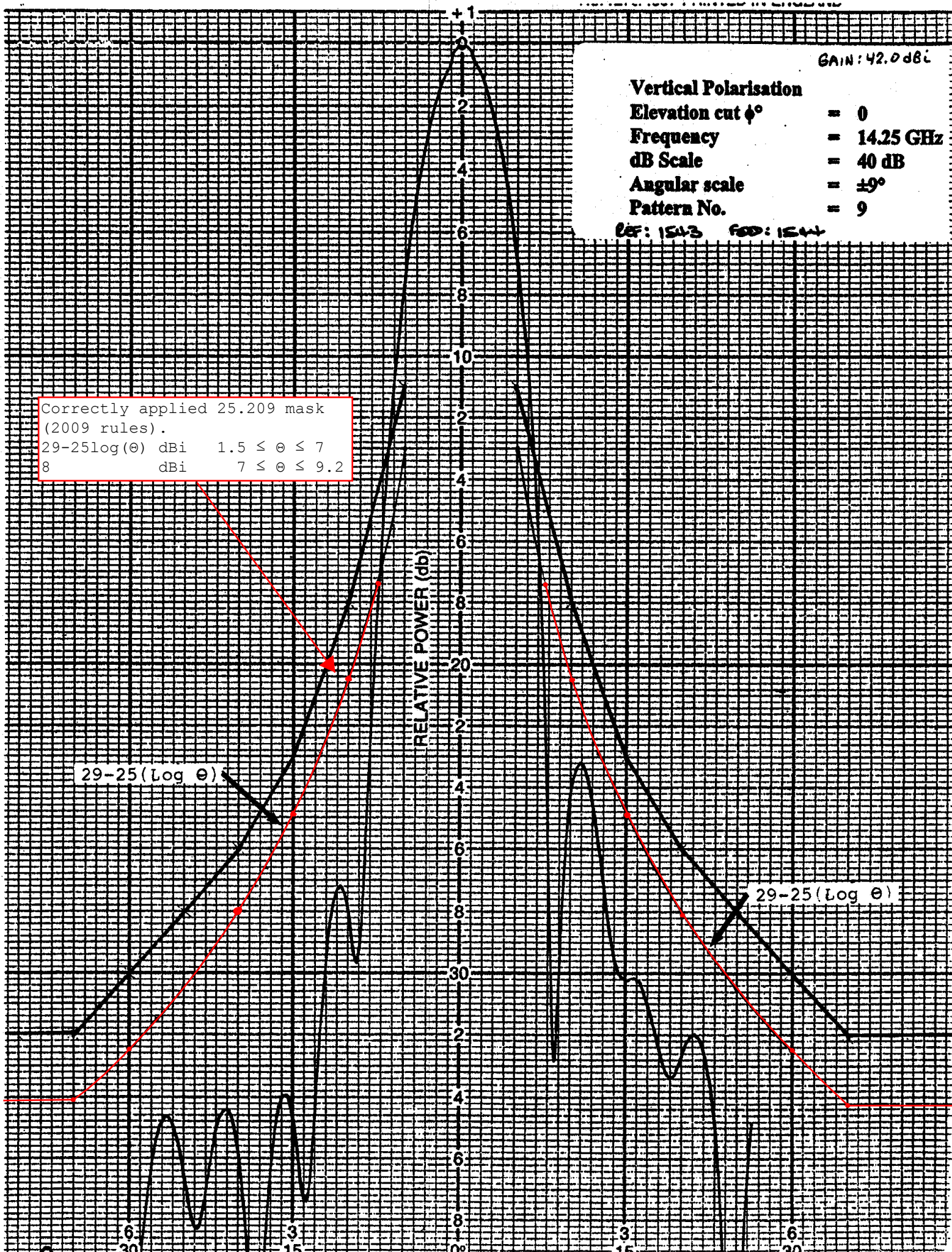
REF: 1543 FSD: 1544

Correctly applied 25.209 mask  
(2009 rules).  
29-25log( $\theta$ ) dBi  $1.5 \leq \theta \leq 7$   
8 dBi  $7 \leq \theta \leq 9.2$

RELATIVE POWER (db)

29-25(Log  $\theta$ )

29-25(Log  $\theta$ )



GAIN: 42.0 dBi

**Horizontal Polarisation**  
Elevation cut  $\phi^\circ$  = 0  
Frequency = 14.5 GHz  
dB Scale = 40 dB  
Angular scale =  $\pm 9^\circ$   
Pattern No. = 18  
REF: 1543 F20: 1544

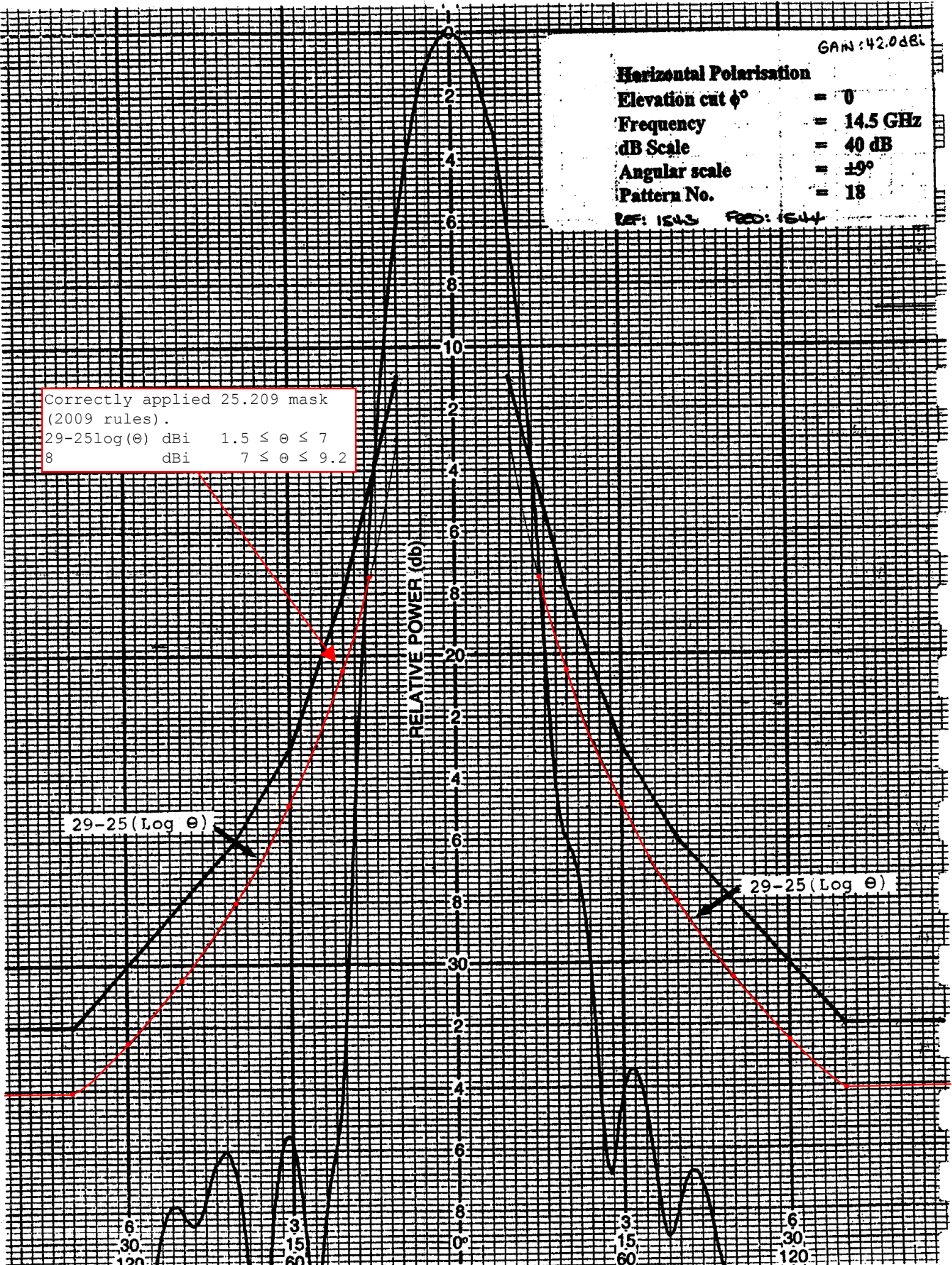
Correctly applied 25.209 mask  
(2009 rules).  
29-25log( $\theta$ ) dBi  $1.5 \leq \theta \leq 7$   
8 dBi  $7 \leq \theta \leq 9.2$

RELATIVE POWER (db)

29-25(Log  $\theta$ )

29-25(Log  $\theta$ )

6 30 120 3 15 60 3 15 60 6 30 120



GAIN: 42.0 dBi

Vertical Polarisation  
Elevation cut  $\phi^\circ$  = 0  
Frequency = 14.5 GHz  
dB Scale = 40 dB  
Angular scale =  $\pm 9^\circ$   
Pattern No. = 10  
Ref: ISA3 Fwd: ISA4

Correctly applied 25.209 mask  
(2009 rules).  
 $29-25\log(\theta)$  dBi  $1.5 \leq \theta \leq 7$   
8 dBi  $7 \leq \theta \leq 9.2$

RELATIVE POWER (db)

$29-25(\text{Log } \theta)$

$29-25(\text{Log } \theta)$

6  
30  
120

3  
15  
60

3  
15  
60

6  
30  
120

