

1/29

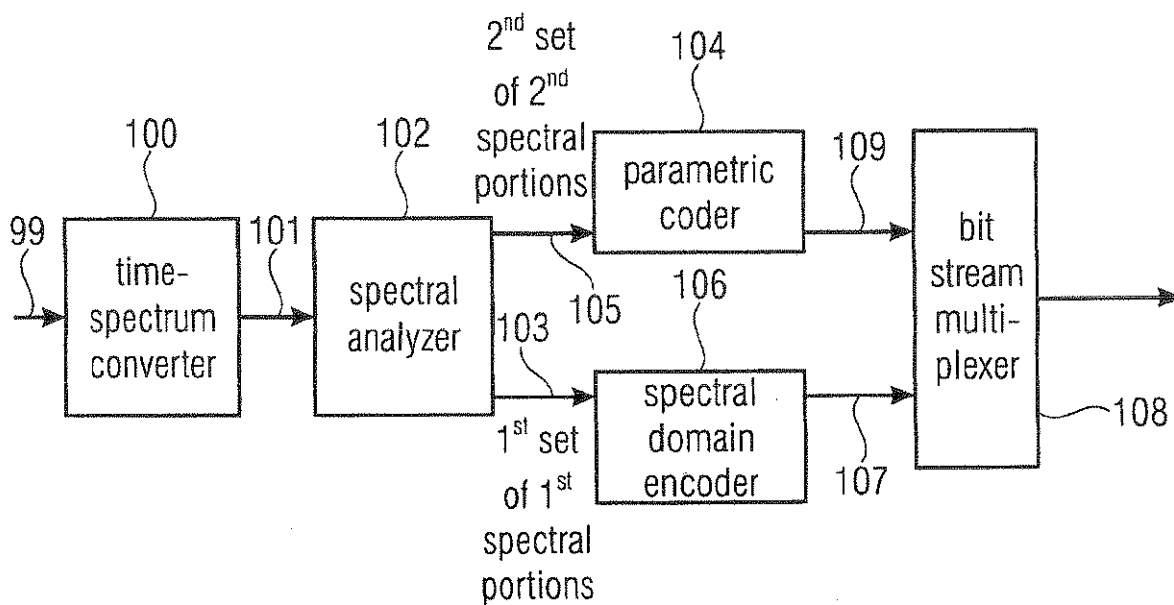


FIG 1A

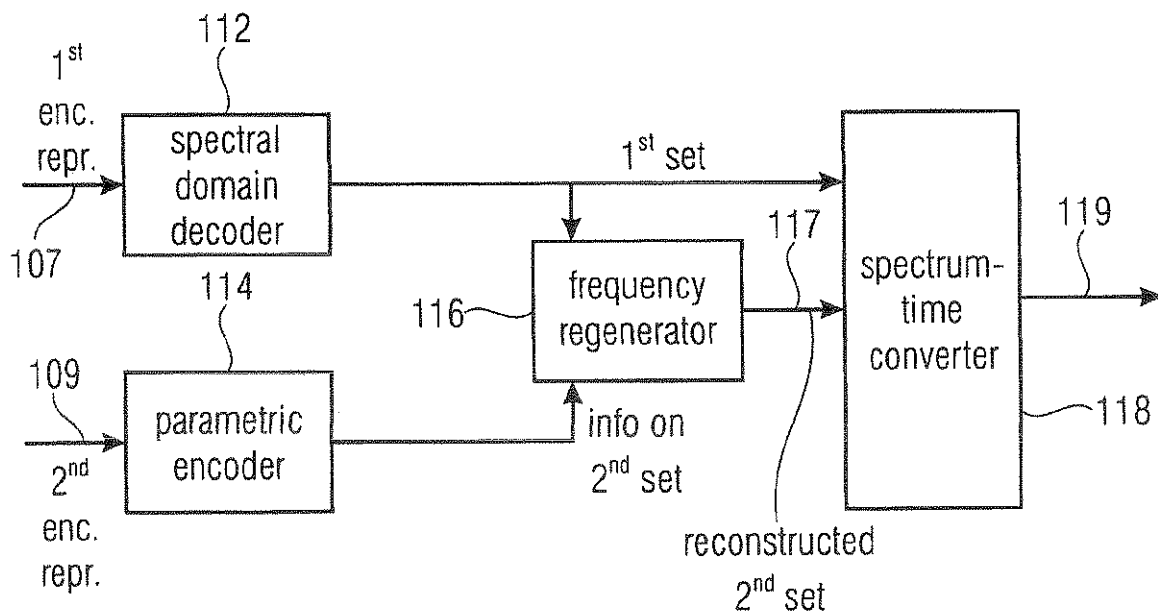


FIG 1B

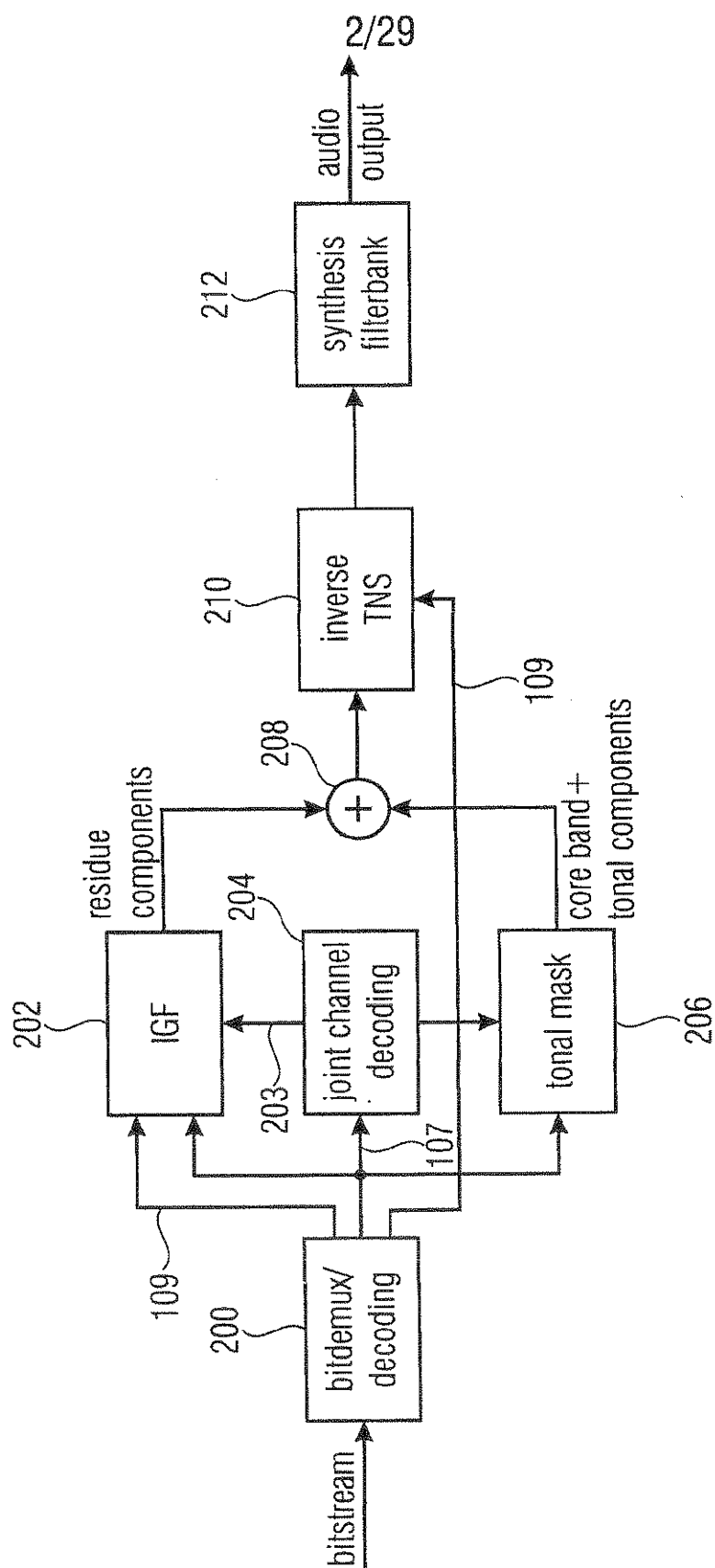


FIG 2A

3/29

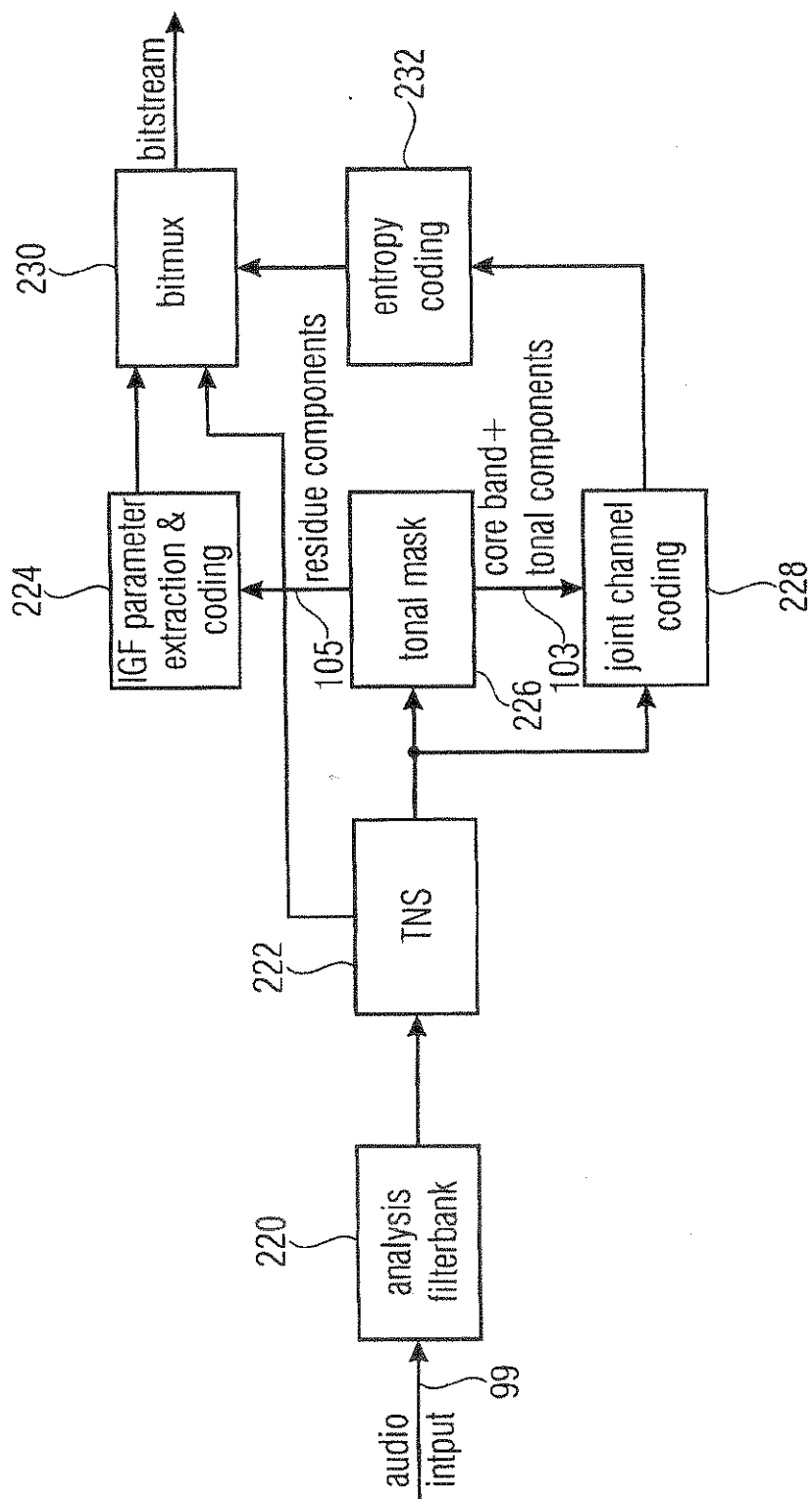


FIG 2B

4/29

- 1st resolution (high resolution) for „envelope“ of the 1st set (line-wise coding);
- 2nd resolution (low resolution) for „envelope“ of the 2nd set (scale factor per SCB);

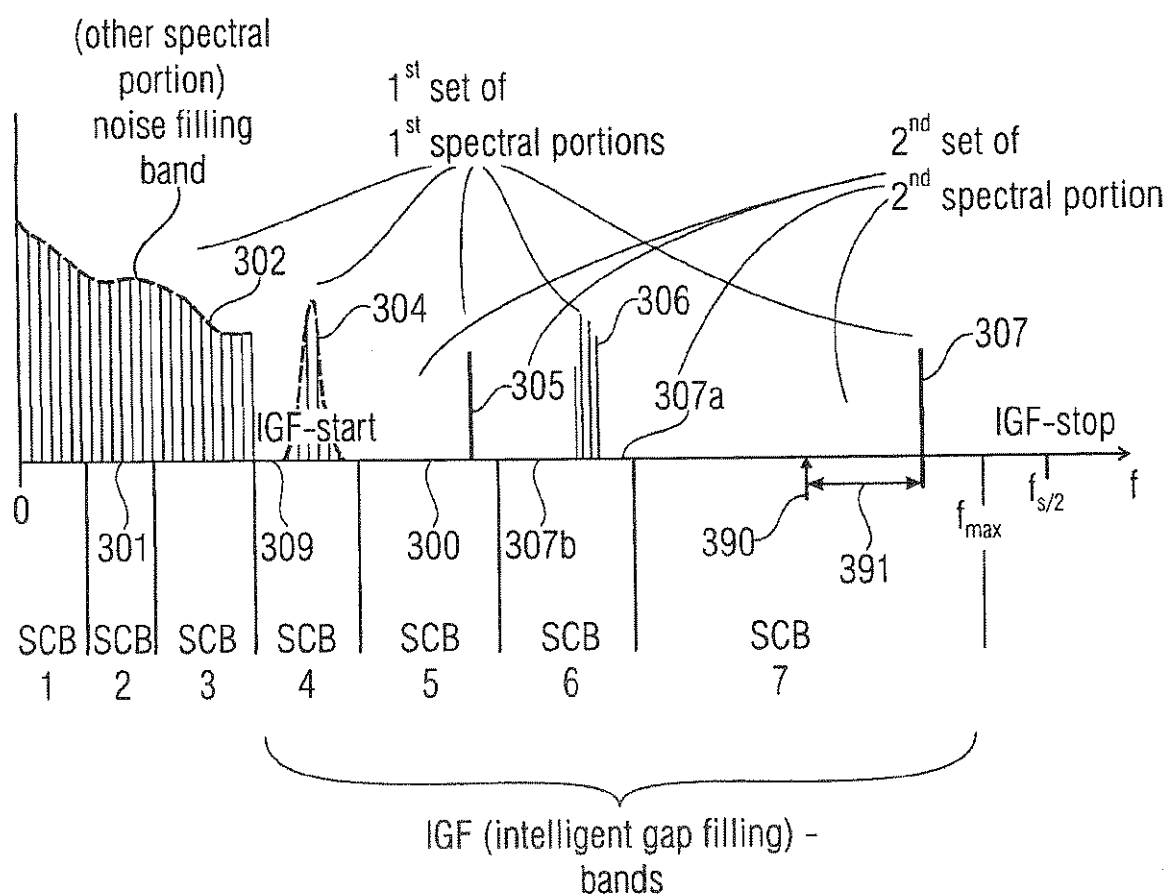


FIG 3A

5/29

SCB1	SCB2	SCB3	SCB4	SCB5	SCB6	SCB7
SF1	SF2	SF3	SF4	SF5	SF6	SF7
			E ₁	E ₂	E ₃	E ₄
	NF ₂					

308 310 312

FIG 3B

6/29

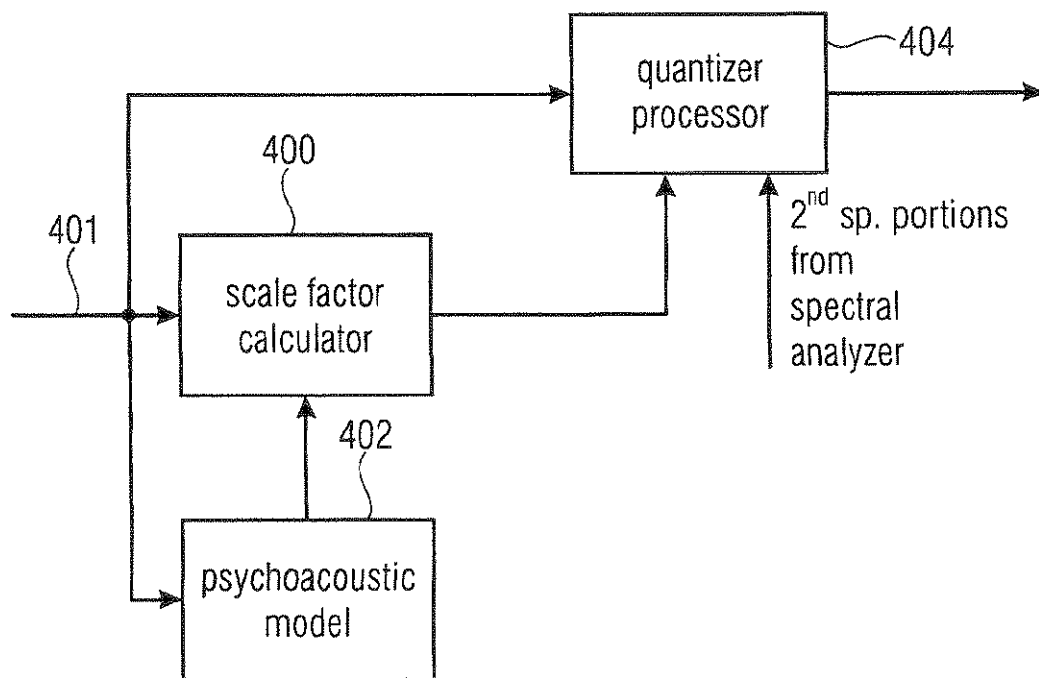


FIG 4A

7/29

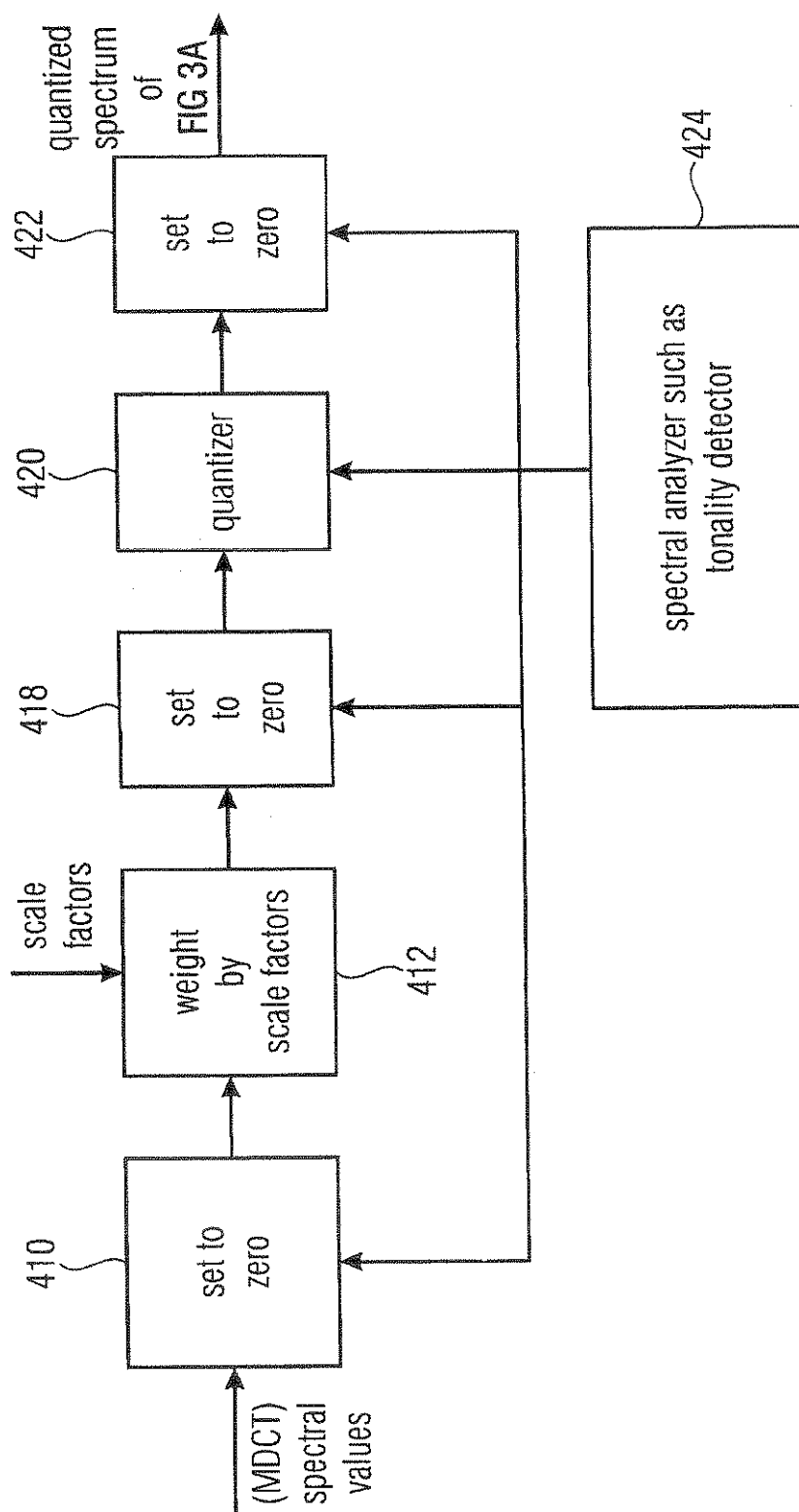


FIG 4B
(QUANTIZER PROCESSOR)

8/29

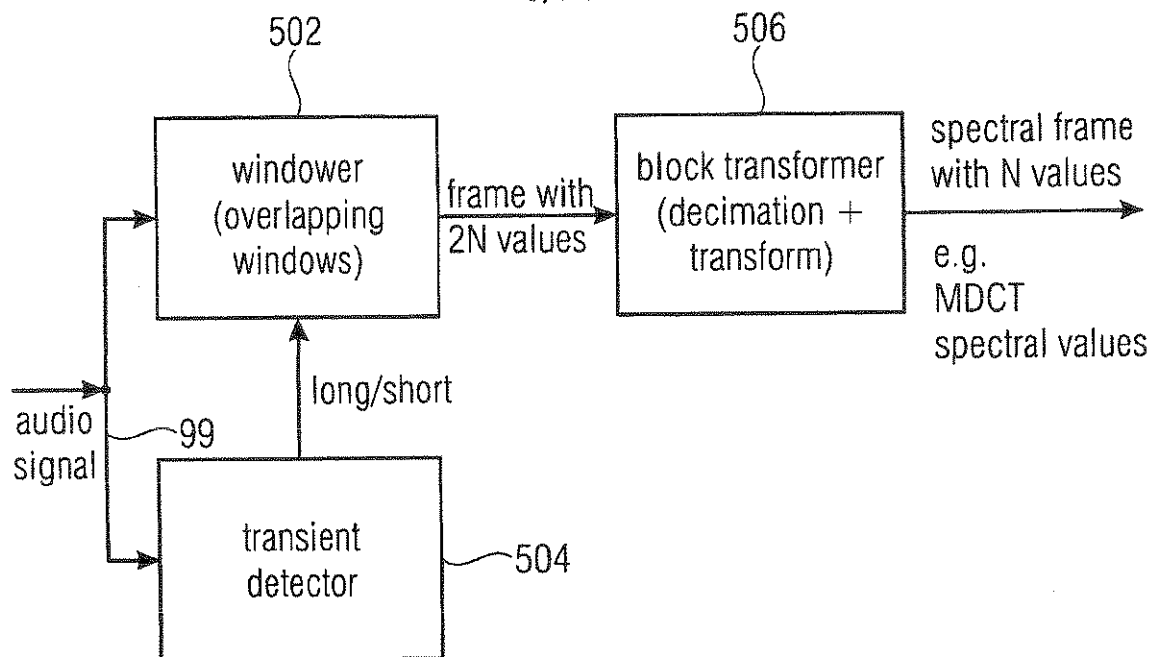


FIG 5A
(OTHER SPECTRAL PORTIONS)

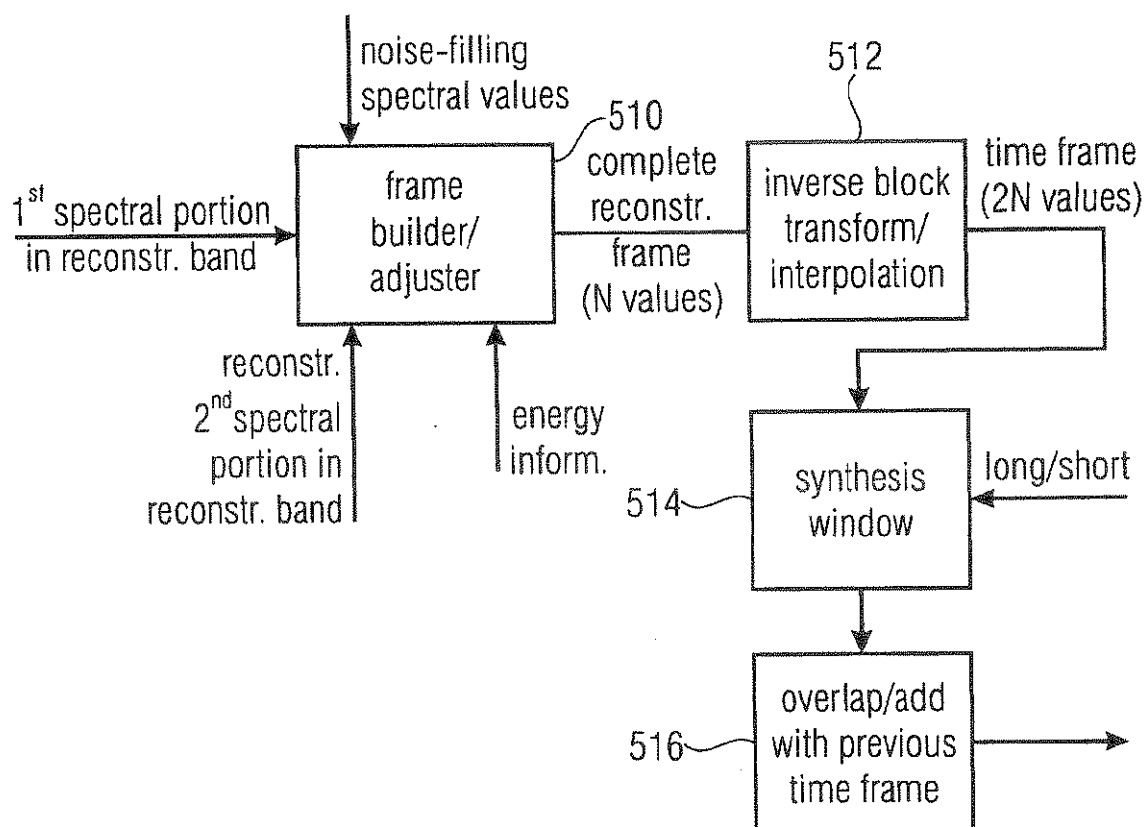


FIG 5B

9/29

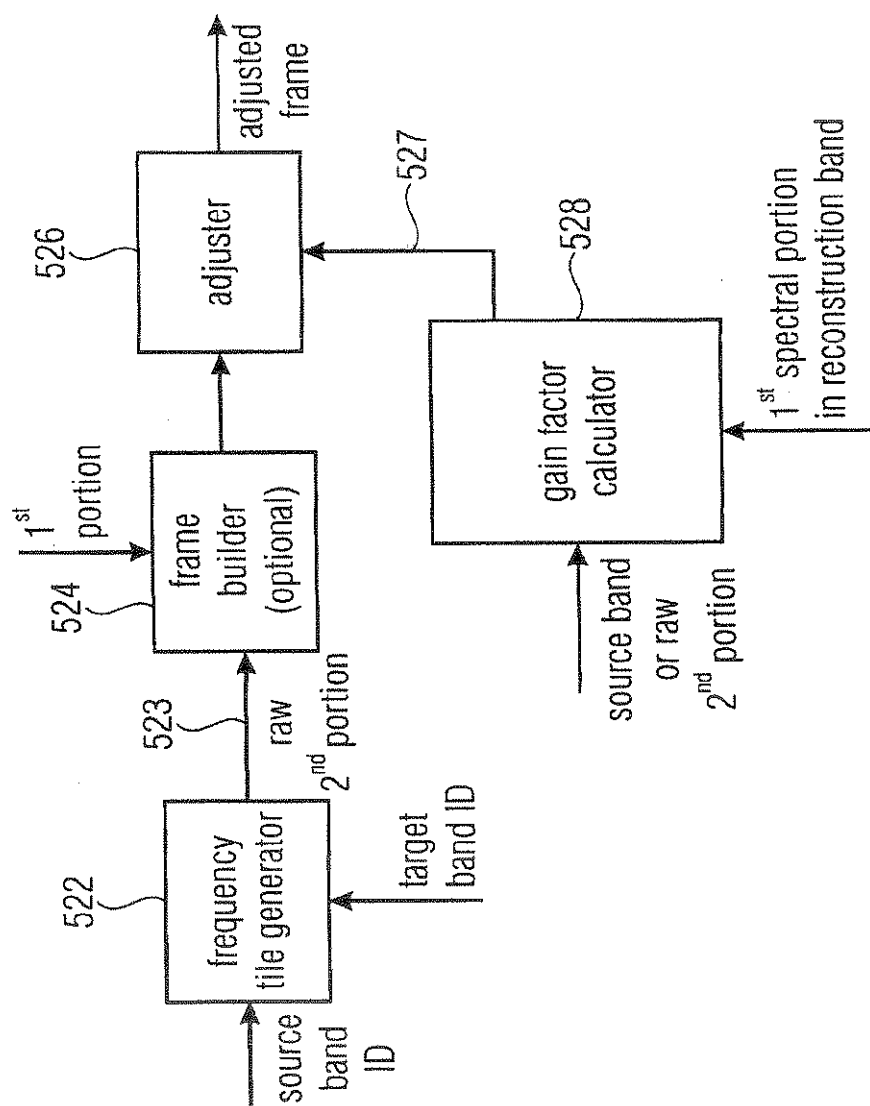


FIG 5C

10/29

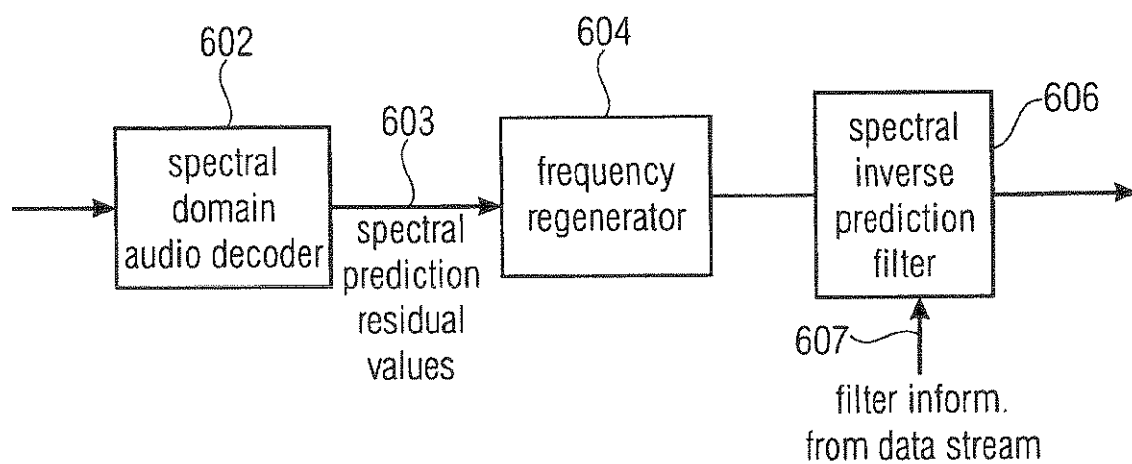


FIG 6A

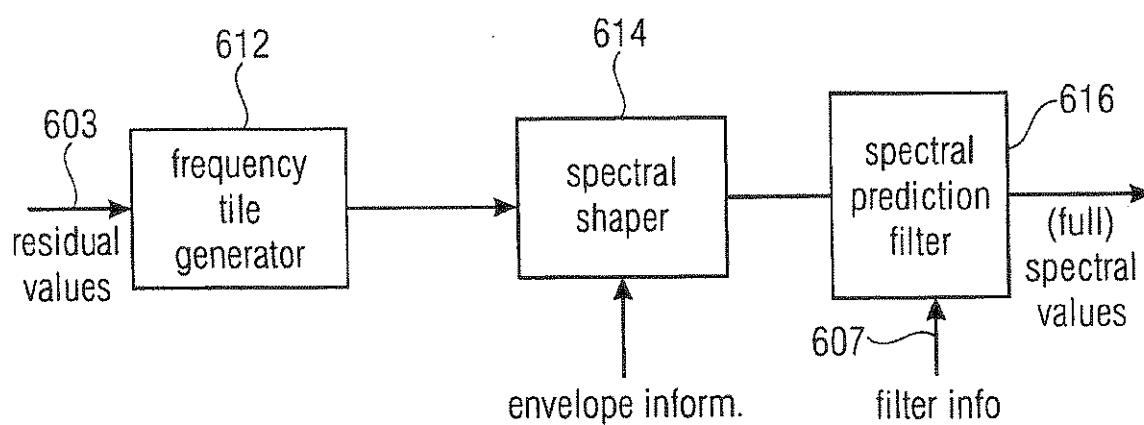


FIG 6B

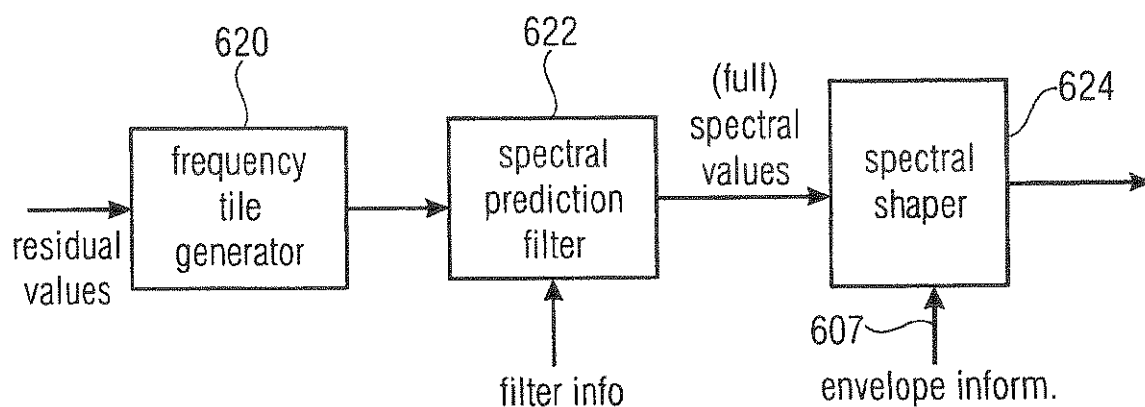


FIG 6C

11/29

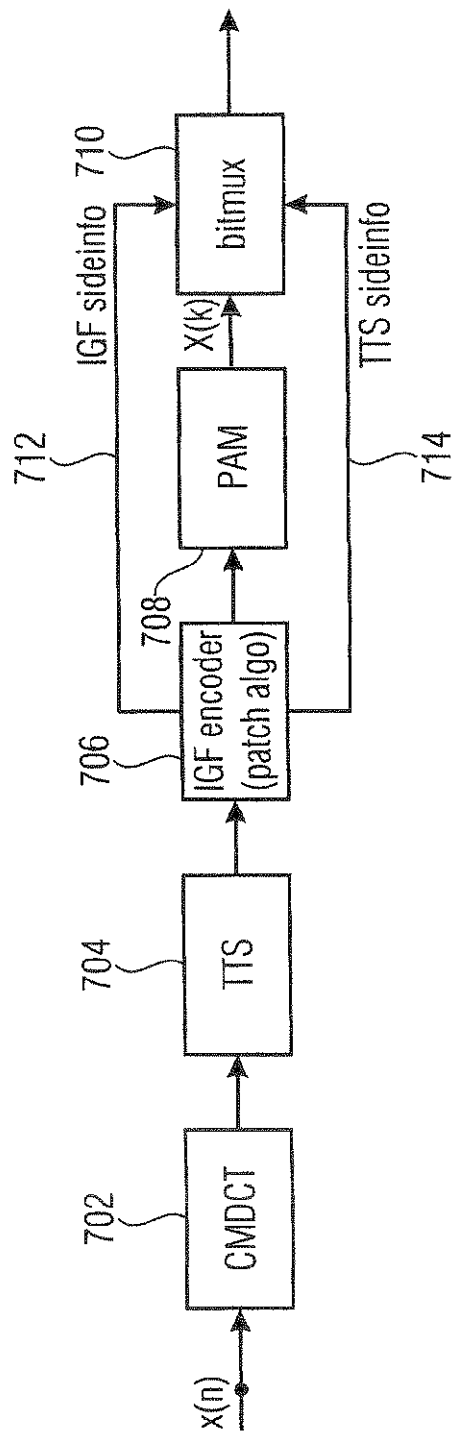


FIG 7A
(ENCODER)

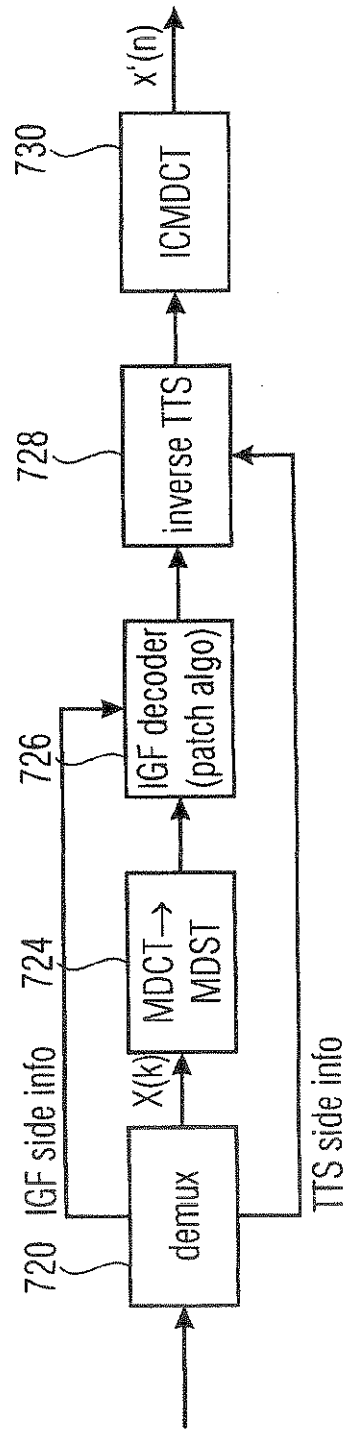
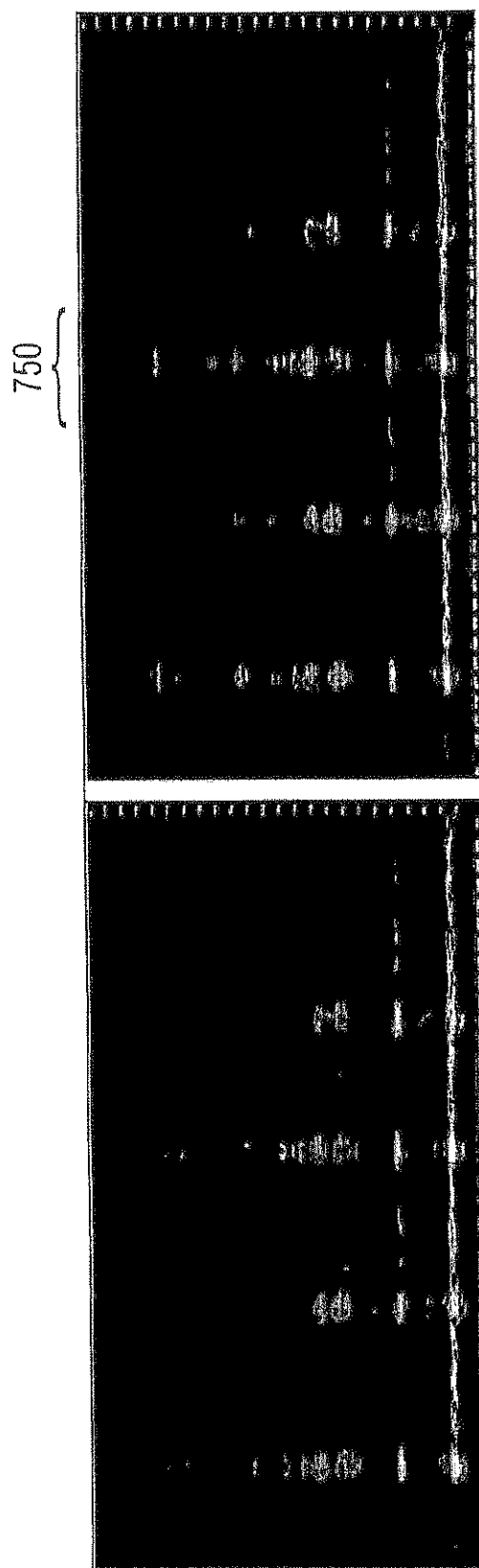


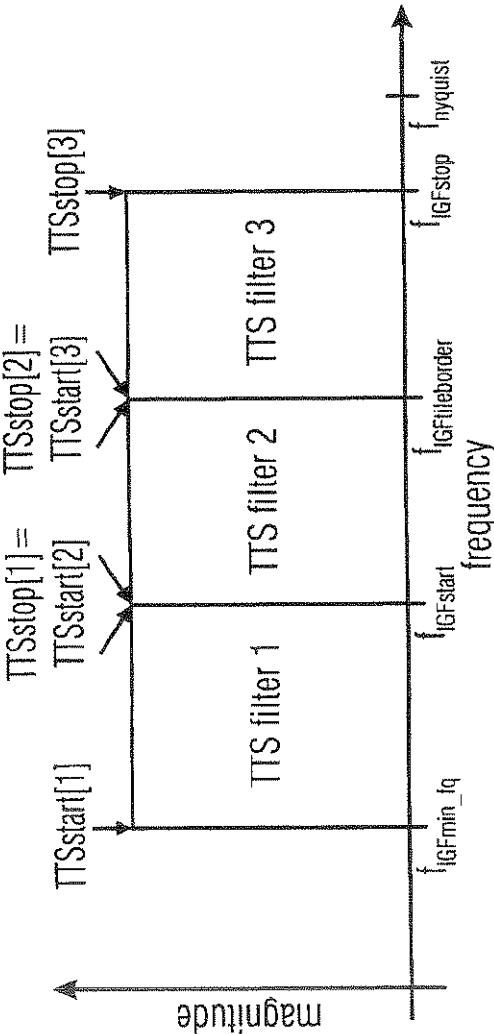
FIG 7B
(DECODER)

12/29



DFT spectrogram of the original signal (left panel);
DFT spectrogram of the extended signal without TTS (right panel).

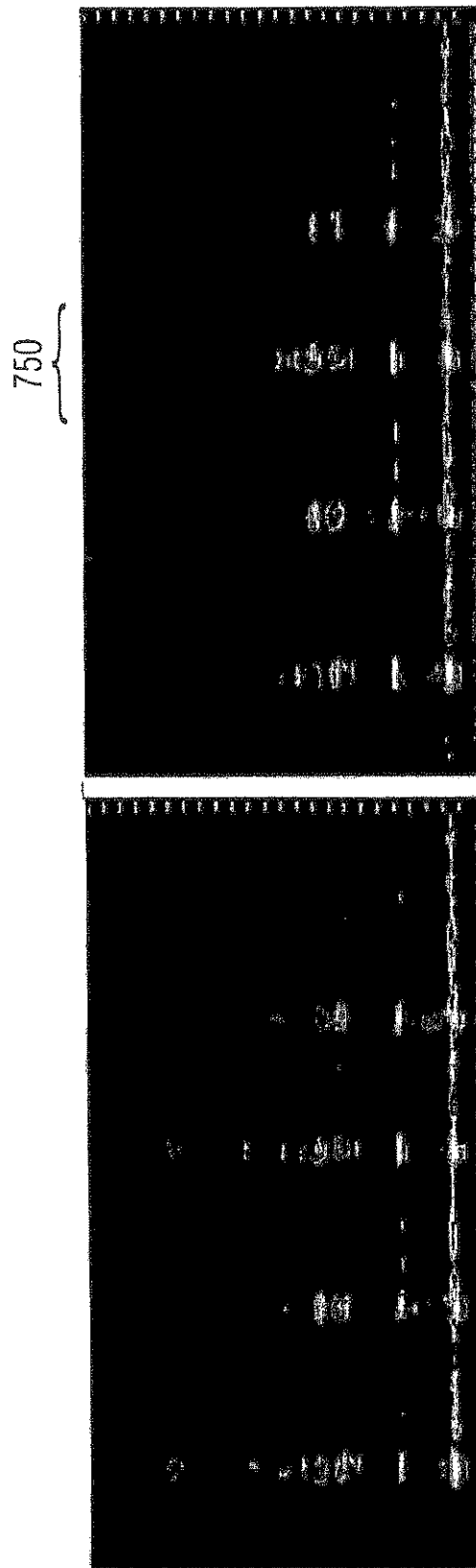
FIG 7C



Basis TTS filter scheme. Each box marks the spectral region covered by one particular filter.

FIG 7D

14/29



DFT spectrogram of the original signal (left panel);
DFT spectrogram of the extended signal with TTS (right panel).

FIG 7E

15/29

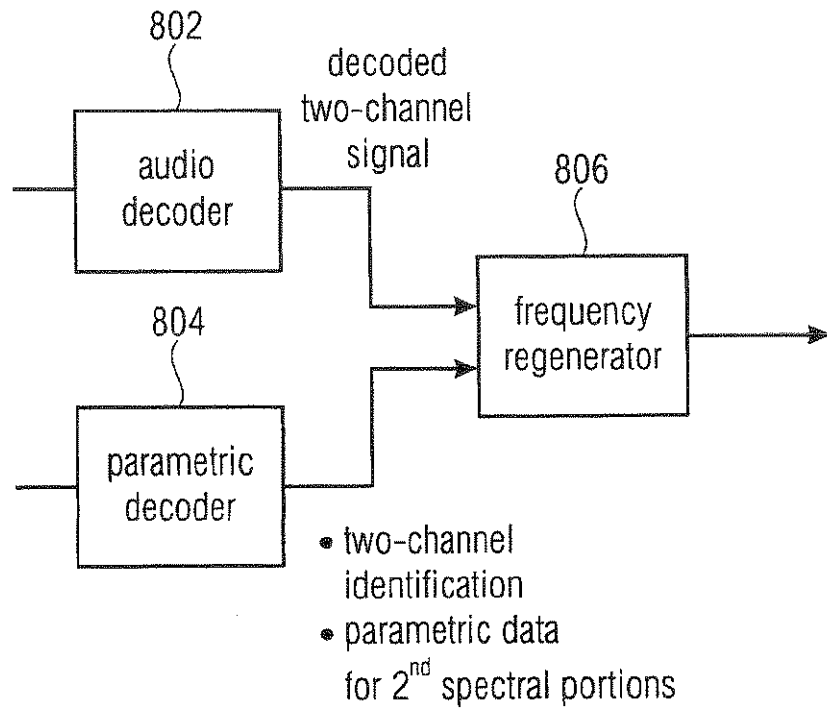


FIG 8A

source range	1	1	2	2
destin. range	1	2	1	2

1: first two-channel representation (e.g. L/R)

2: second two-channel representation (e.g. M/S)

FIG 8B

16/29

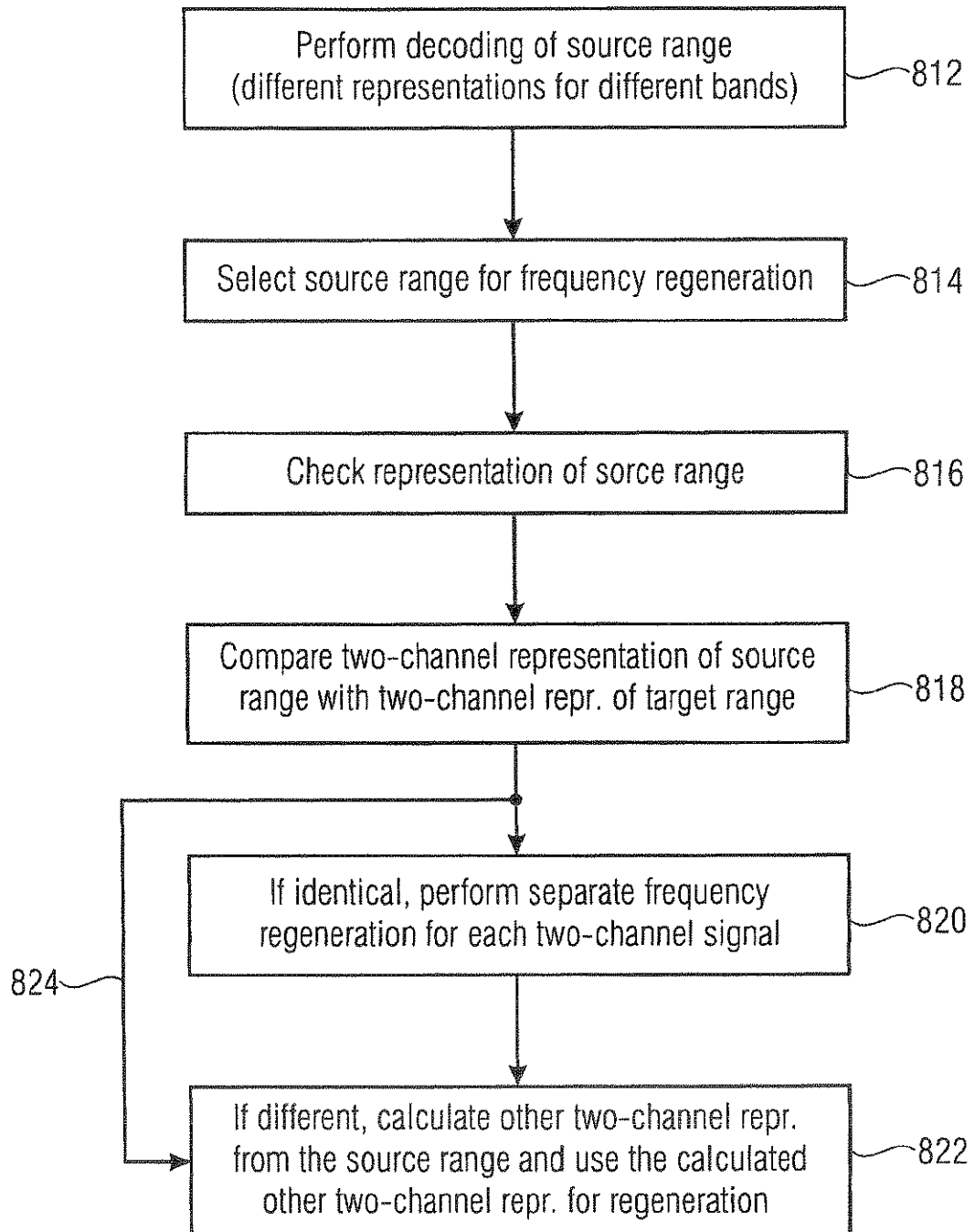


FIG 8C

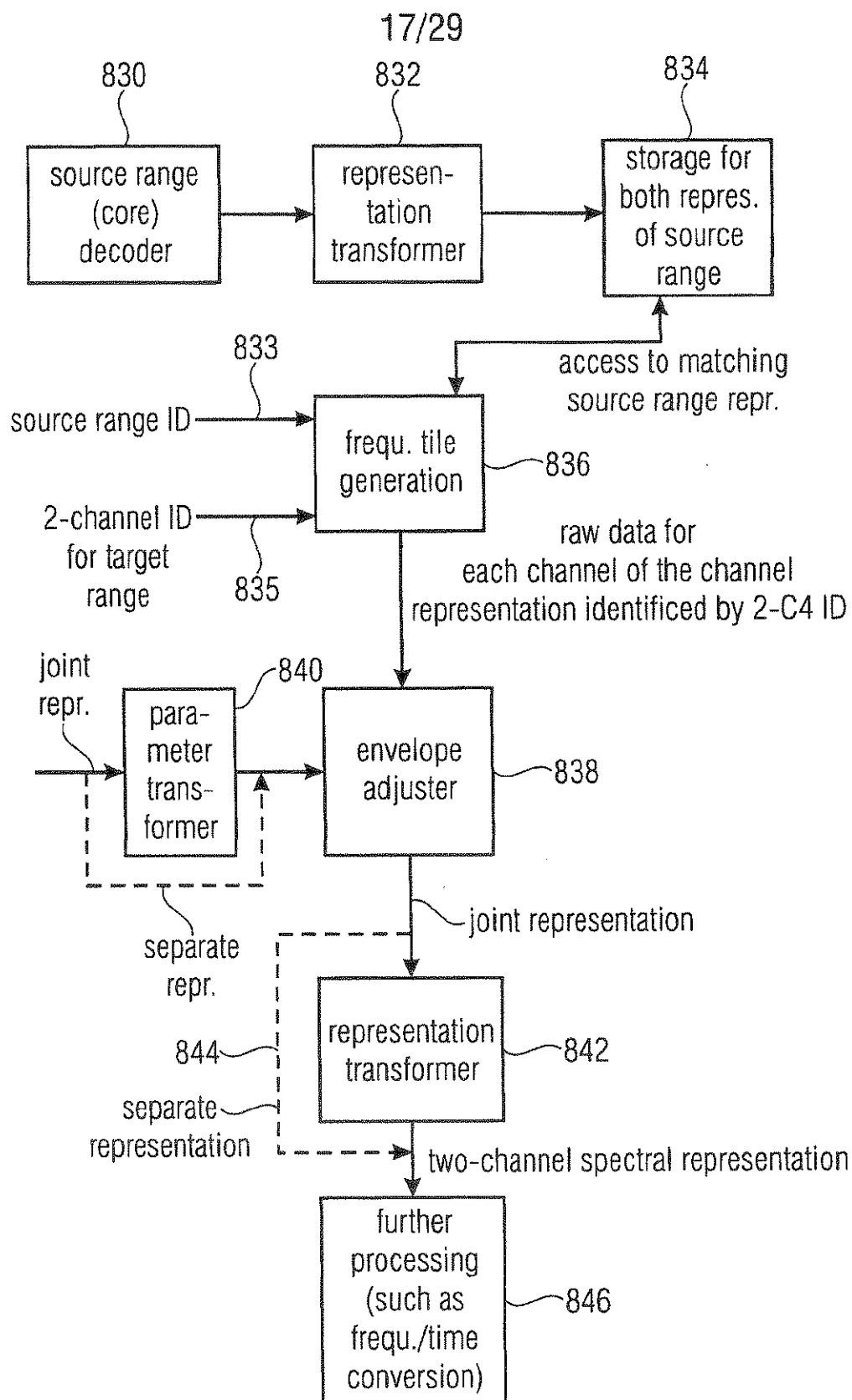


FIG 8D

18/29

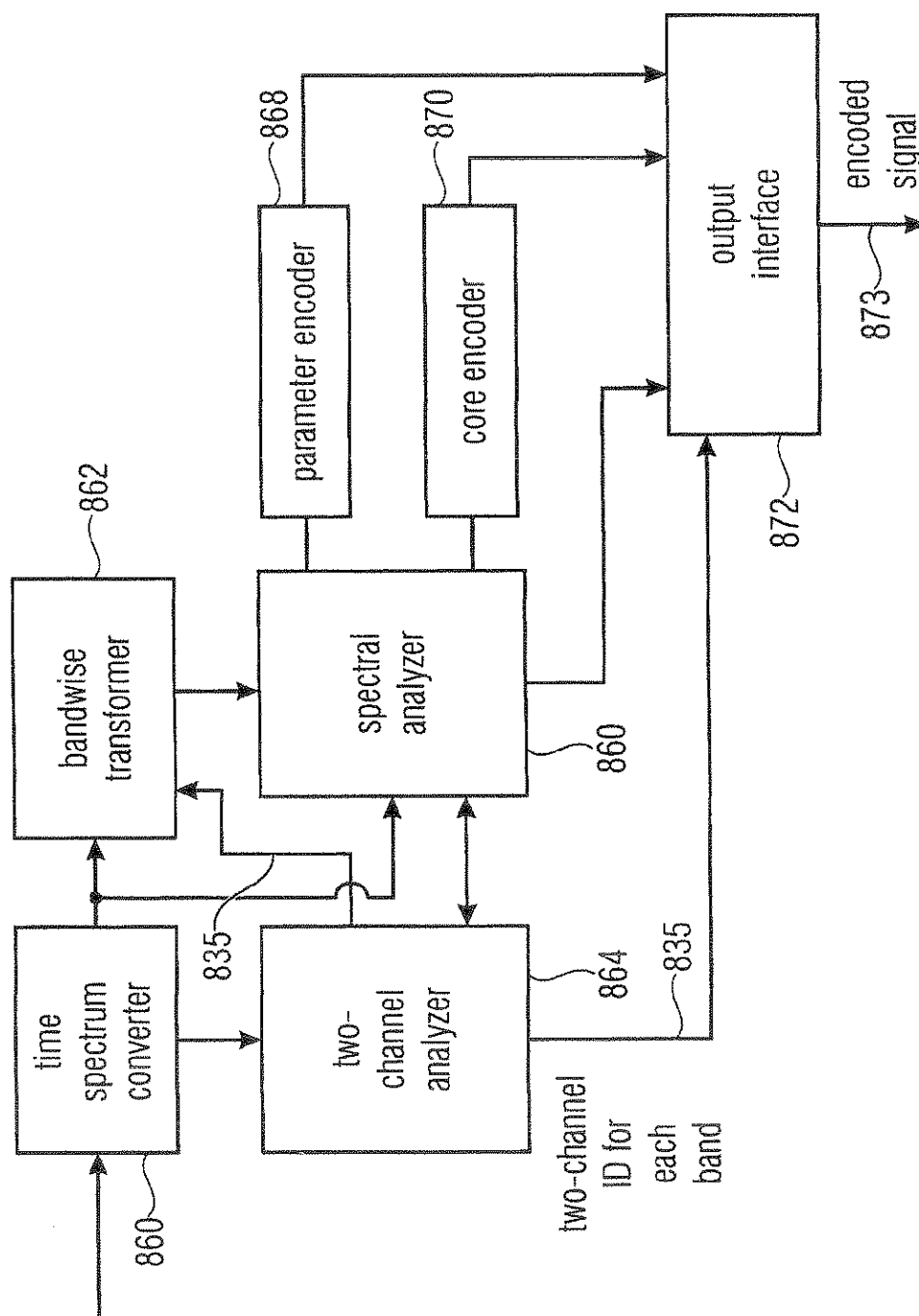


FIG 8E

19/29

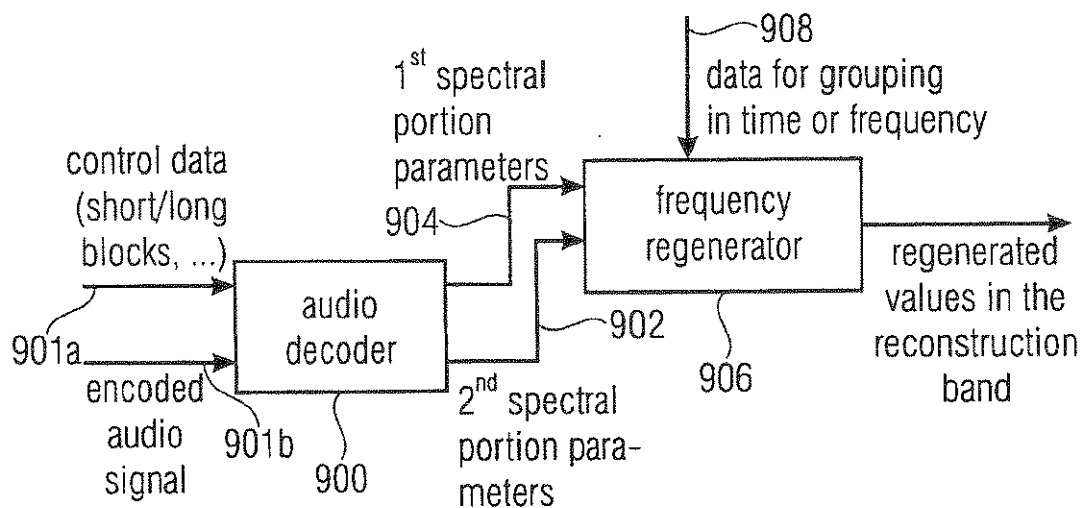


FIG 9A

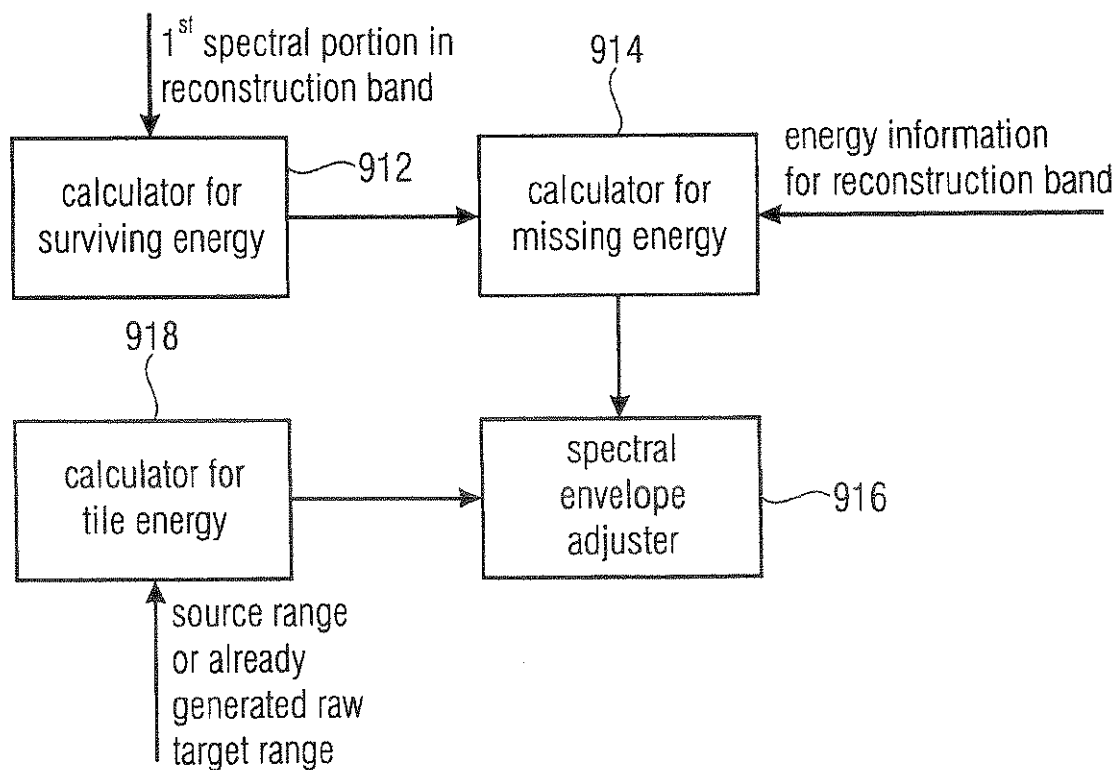
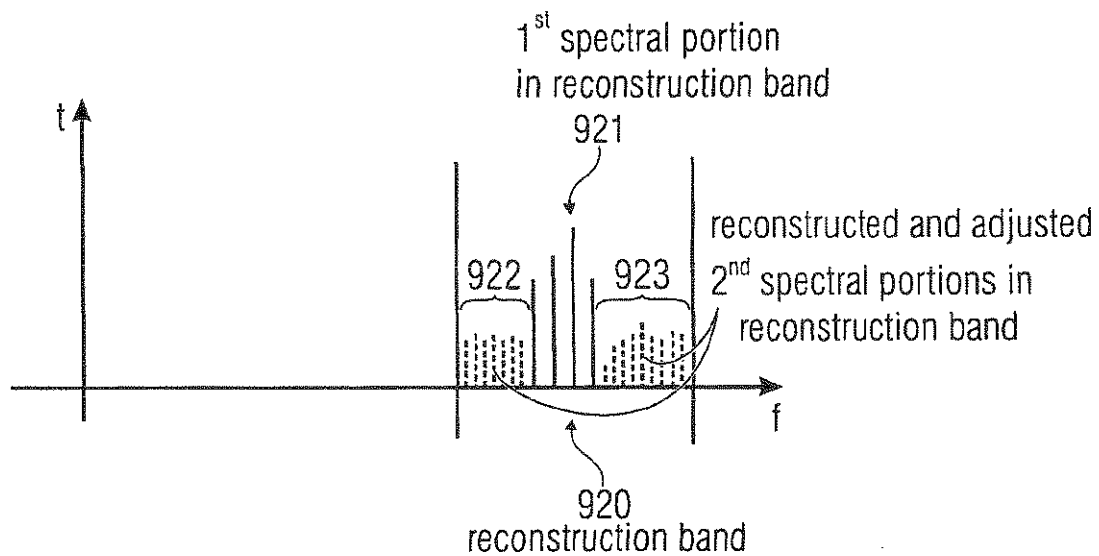


FIG 9B

20/29



- e.g. • surviving energy: 5 units
- energy value for reconstr. band: 10 units (covers 1st and 2nd spectral portions in the reconstruction band)
- energy of source range data or raw target range data: 8 units
- missing energy: 5 units

• gain factor: $g = \sqrt{\frac{mE_k}{pE_k}} = 0.79$

→ only spectral values for the 2nd spectral portions are adjusted

→ 1st spectral portion is not influenced by the envelope adjustment

FIG 9C

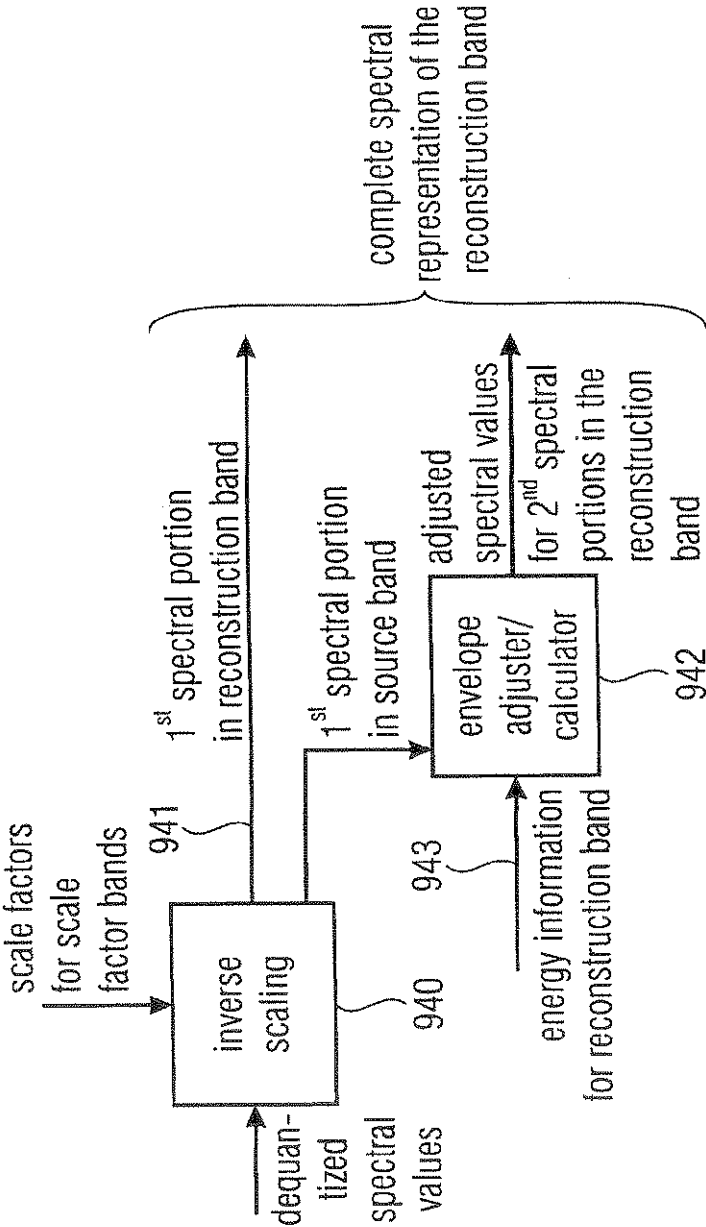


FIG 9D

22/29

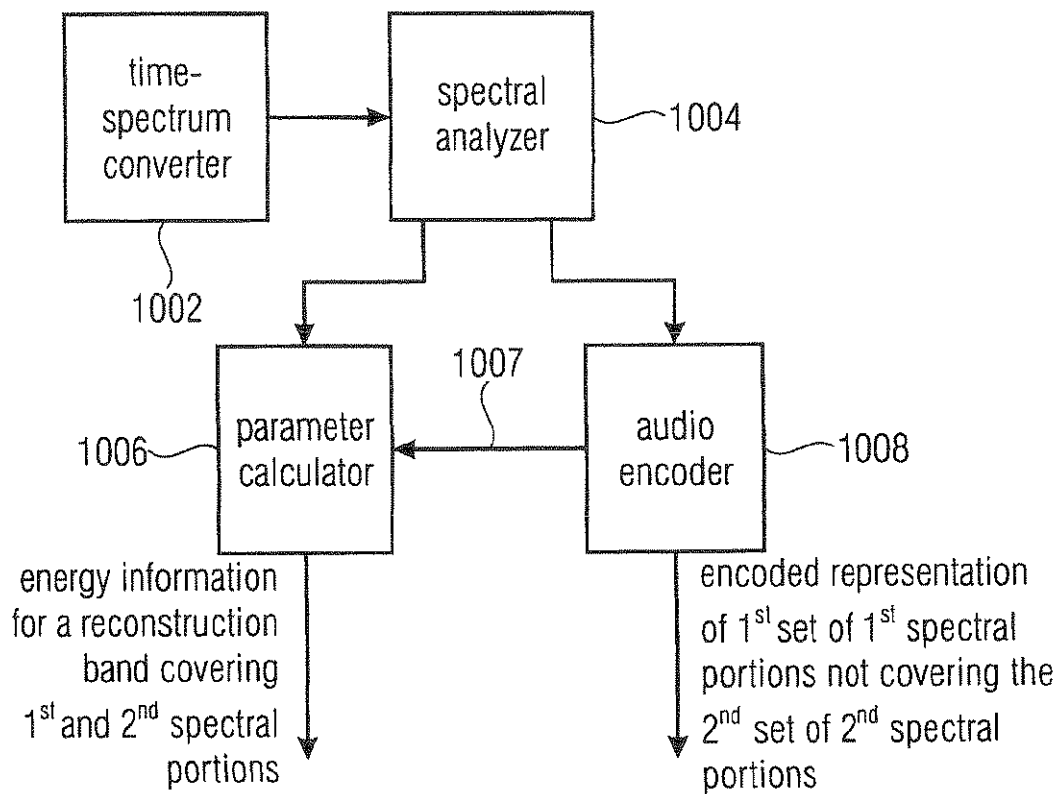


FIG 10A

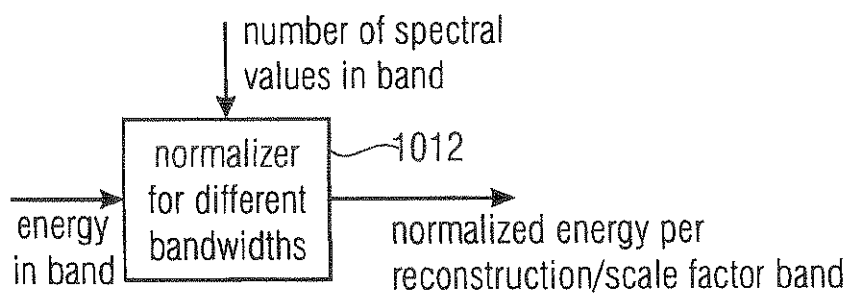


FIG 10B

23/29

control info from core encoder

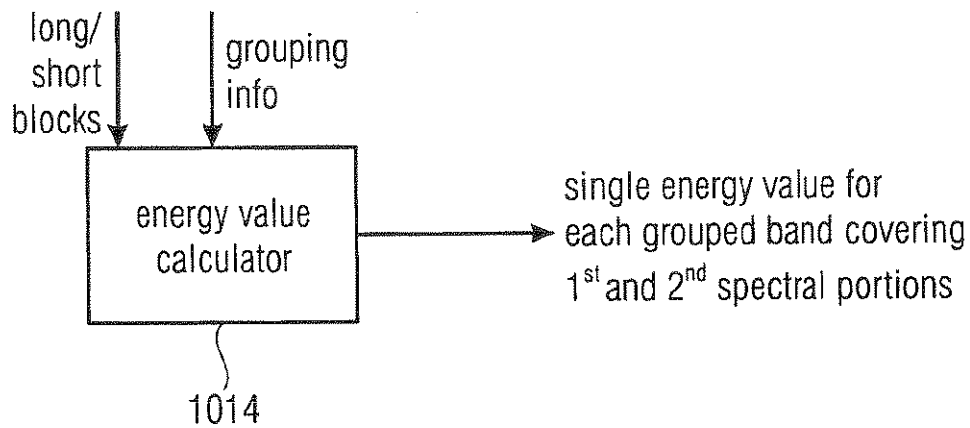


FIG 10C

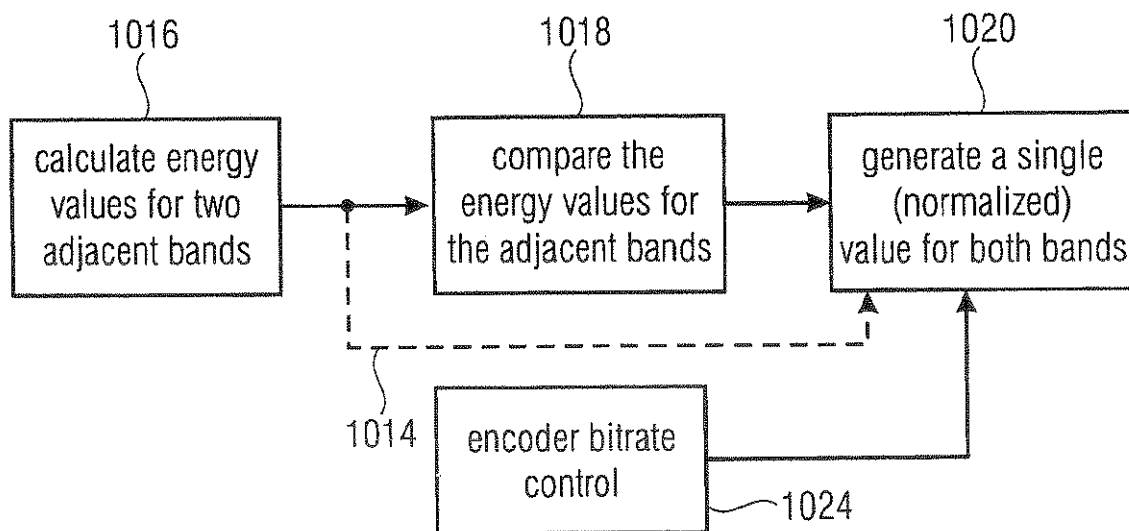


FIG 10D

24/29

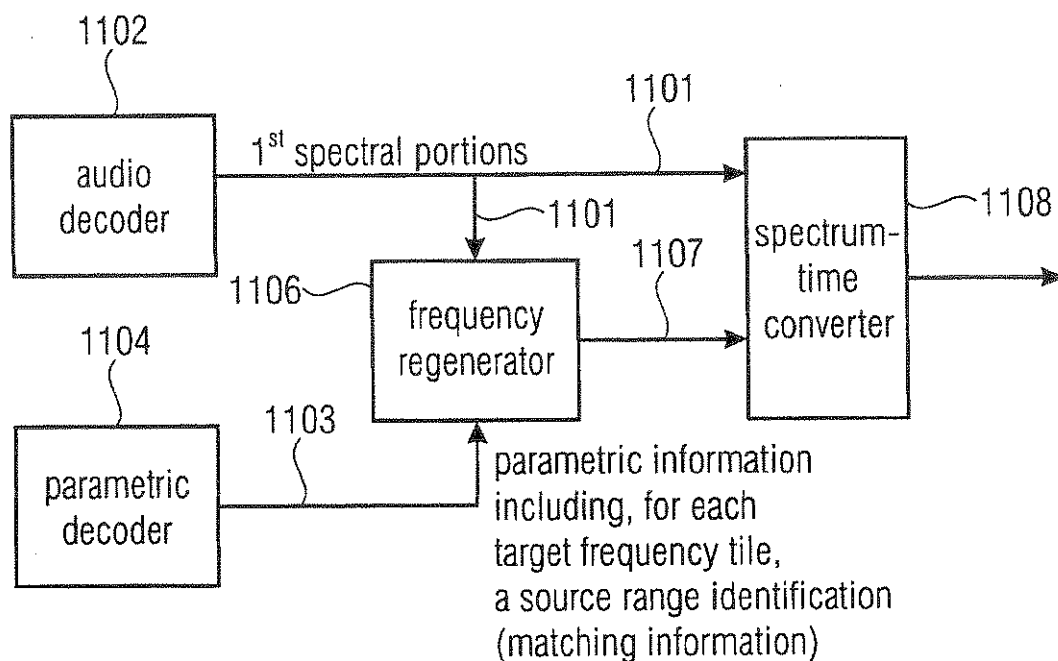


FIG 11A

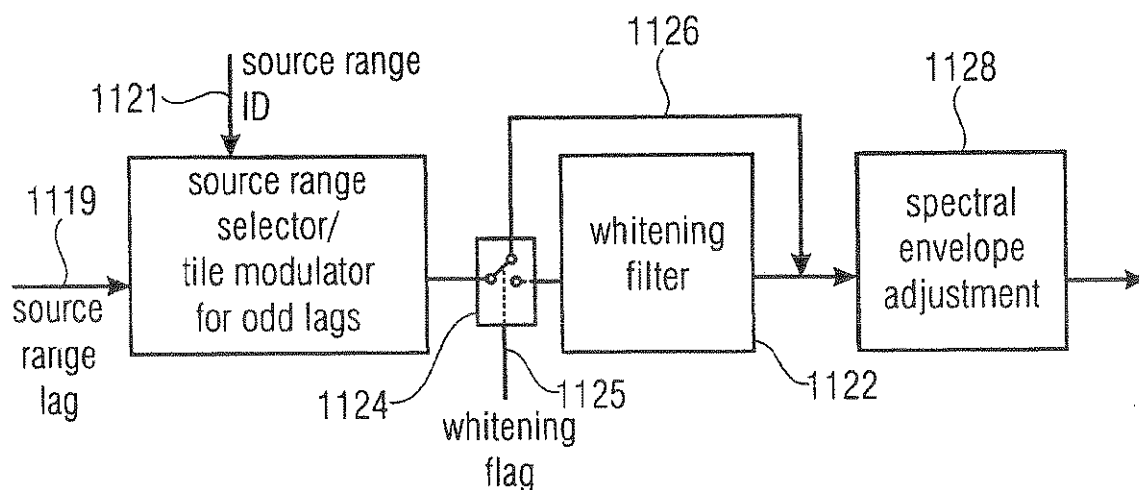


FIG 11B

25/29

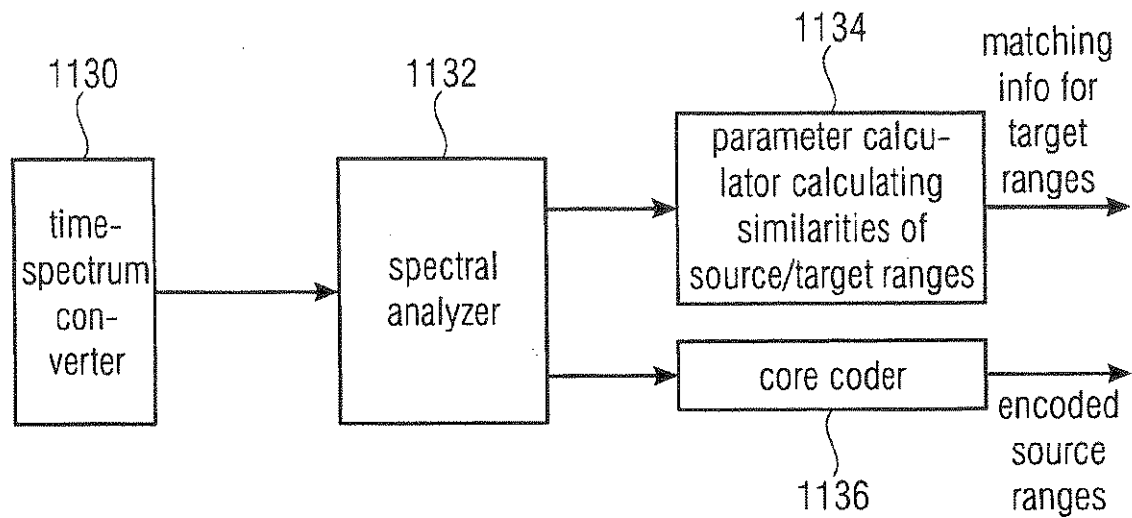


FIG 11C

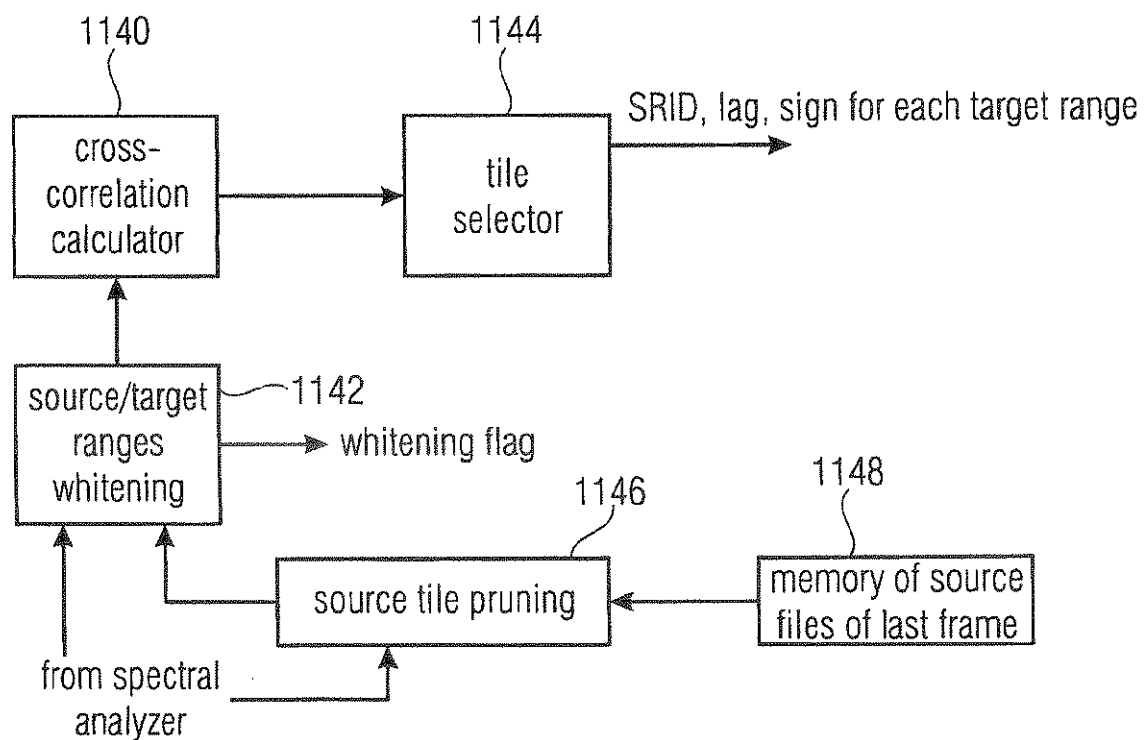


FIG 11D

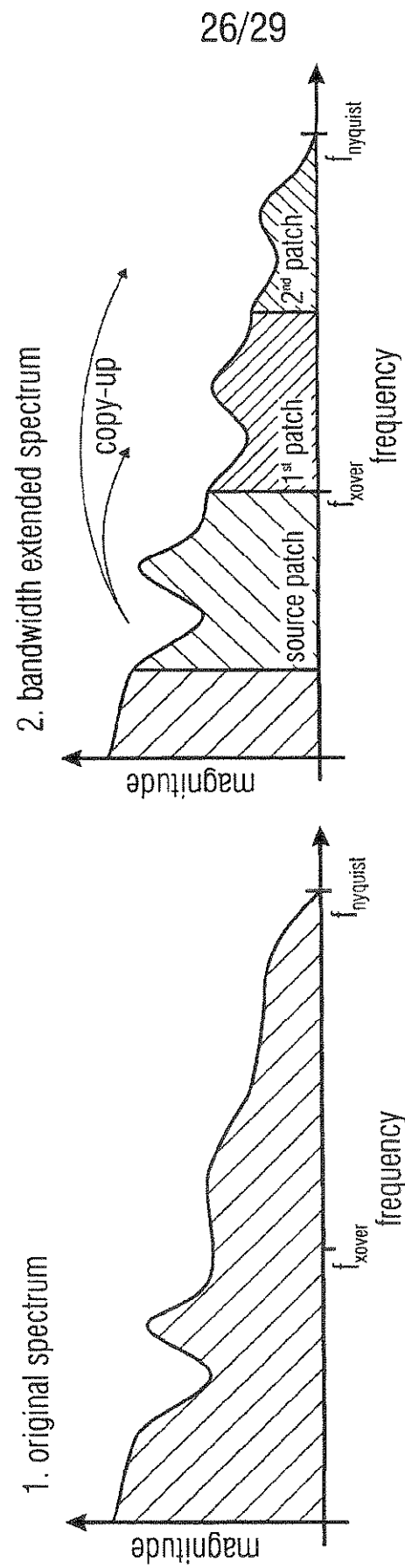


FIG 12A

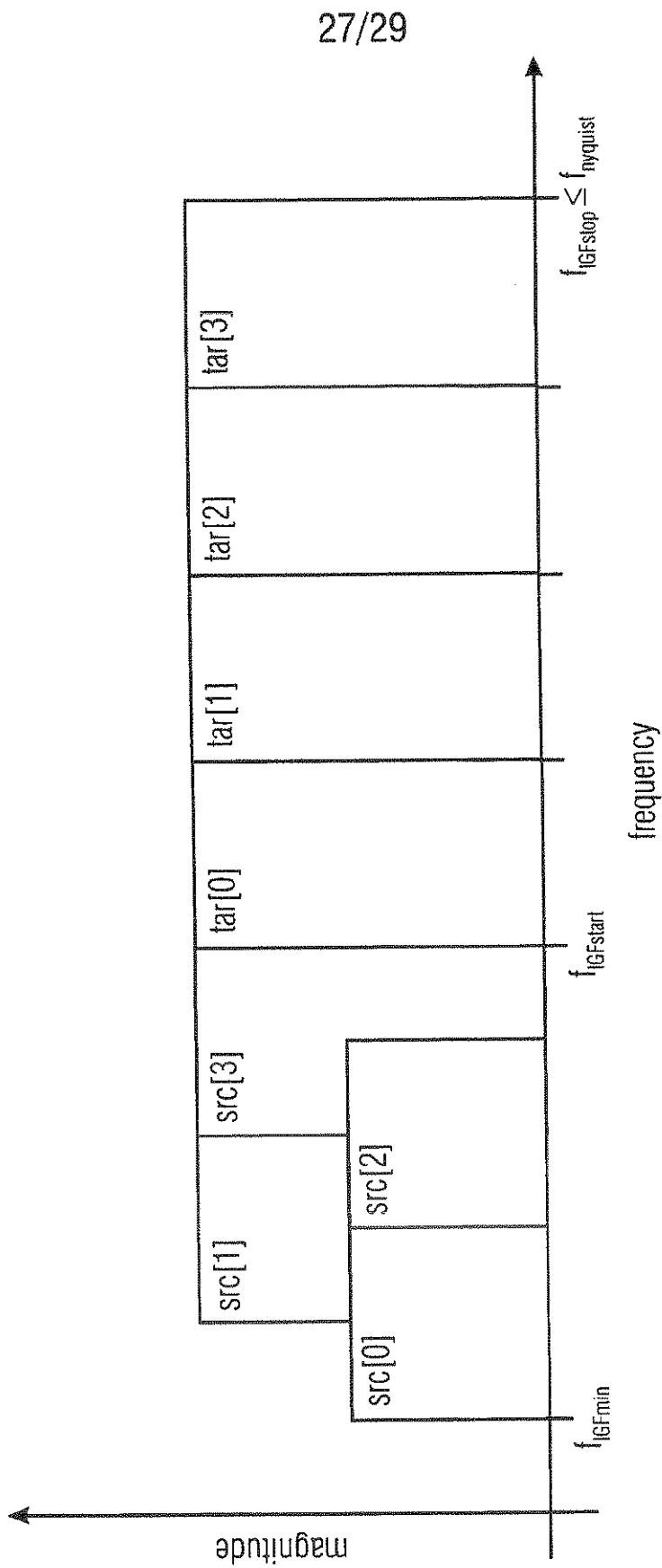


FIG 12B

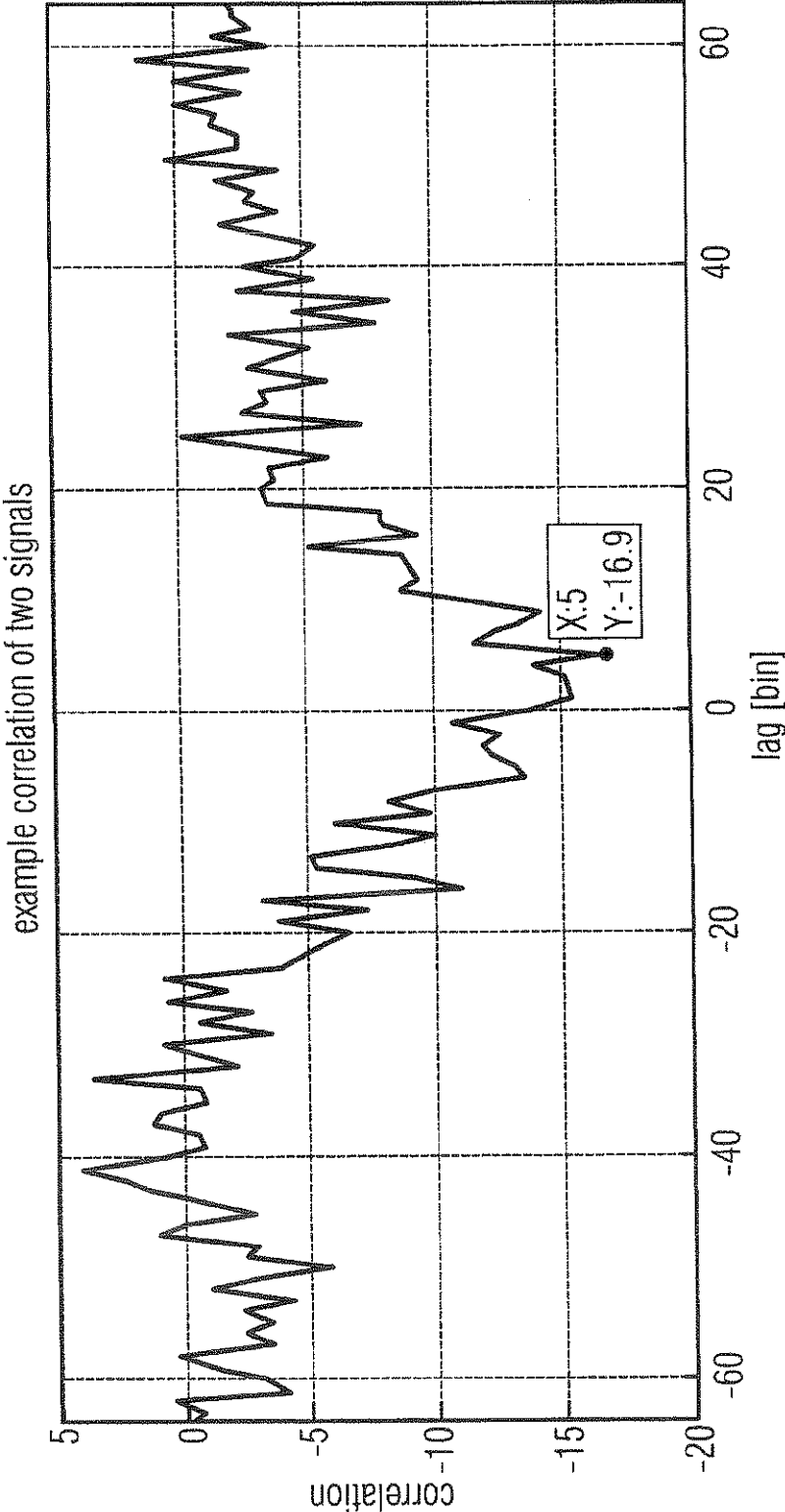


FIG 12C

29/29

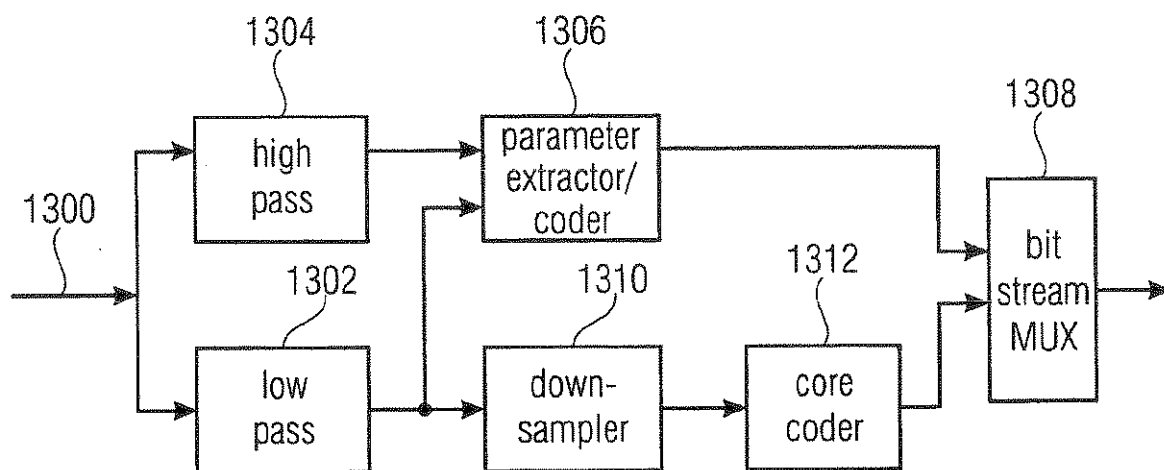


FIG 13A
(PRIOR ART)

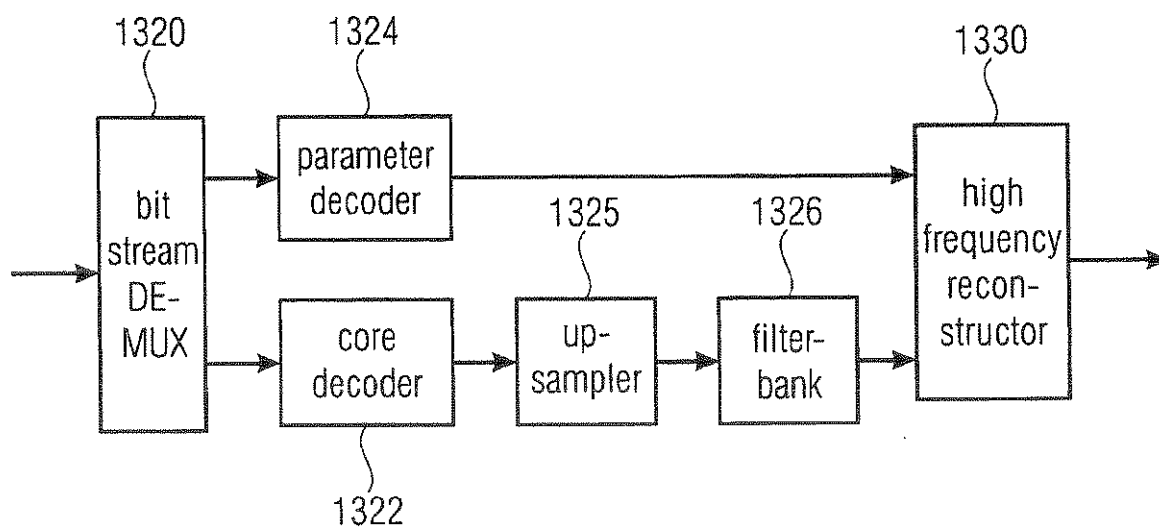


FIG 13B
(PRIOR ART)