

**IN THE U.S. PATENT AND TRADEMARK OFFICE**

In re U.S. Patent Application of:

APPLICANTS: Jukka Väyrynen, Antti H. Rauhala, Simo Murtojärvi

SERIAL NO.: 11/                      FILING DATE: Herewith

EXAMINER: Liu, Shuwang    ART UNIT: 2634

ATTORNEY'S DOCKET NO.: 872.0156.U2(US)

TITLE: DUAL MODE MULTI-SLOT EGPRS TRANSMITTER

Commissioner for Patents

Alexandria, VA 22313

**PRELIMINARY AMENDMENT FILED IN CONJUNCTION WITH A  
CONTINUATION PATENT APPLICATION**

Sir:

Prior to the examination of this patent application on the merits, please enter the following preliminary amendment to the claims. Any fee required to enter the new claims is appended hereto. However, should the undersigned attorney be mistaken, please charge deposit account no.: 50-1924 for any required fee deficiency.

Please amend the application as shown below.

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Art Unit:

**AMENDMENTS TO THE SPECIFICATION**

Insert at page 1, line 2, after the Title, the following paragraph:

**CROSS-REFERENCE TO A RELATED PATENT APPLICATION:**

This patent application is a continuation of copending and allowed U.S. Patent Application S.N. 10/656,403, filed on 09/04/2003.

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**AMENDMENTS TO THE CLAIMS:**

This listing of the claims will replace all prior versions, and listings, of the claims in this application.

**Listing of Claims:**

Claims 1-19 Cancelled

20. (New) A method to operate a dual mode multi-timeslot RF transmitter, comprising:

prior to a first timeslot, setting a plurality of control signals for the RF transmitter in accordance with a first modulation format used during the first timeslot; and

during a guard period between the first timeslot and a next, temporally adjacent timeslot, setting the plurality of control signals for the RF transmitter in accordance with a second modulation format used during the second timeslot, where the first modulation format differs from the second modulation format, where one of the plurality of control signals is coupled to variable gain element having an output that is coupled to an input of a power amplifier, where one of the plurality of control signals sets a power amplifier mode of operation, and where the mode of operation is one of a variable gain power amplifier and a fixed gain power amplifier.

21. (New) A method as in claim 20, where one of the plurality of control signals sets a power amplifier quiescent current.

22. (New) A method as in claim 20, where at least one of the plurality of control signals controls power amplifier gain.

23. (New) A method as in claim 20, where one of the modulation formats operates with a variable gain power amplifier and the other of the modulation formats operates with a fixed gain power amplifier, where one of the plurality of control signals sets the power amplifier gain and is

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ramped during the guard period.

24. (New) A method as in claim 20, where one of the modulation formats is 8-PSK, and where the other of the modulation formats is GMSK.

25. (New) A dual mode multi-timeslot RF transmitter, comprising:

a programmable power amplifier; and

a multi-timeslot control unit outputting control signals to said programmable power amplifier, said control unit operating, prior to a first timeslot, for setting a plurality of control signals for the RF transmitter in accordance with a first modulation format used during the first timeslot and, during a guard period between the first timeslot and a next, temporally adjacent timeslot, for setting the plurality of control signals for the RF transmitter in accordance with a second modulation format used during the second timeslot, where the first modulation format differs from the second modulation format, where one of the plurality of control signals is coupled to a variable gain amplifier having an output that is coupled to an input of said power amplifier, where one of the plurality of control signals sets a power amplifier mode of operation, and where the mode of operation is one of variable gain and fixed gain.

26. (New) A dual mode multi-timeslot RF transmitter as in claim 25, where one of the plurality of control signals sets a power amplifier quiescent current.

27. (New) A dual mode multi-timeslot RF transmitter as in claim 25, where at least one of the plurality of control signals controls the gain of the power amplifier.

28. (New) A dual mode multi-timeslot RF transmitter as in claim 25, where one of the modulation formats operates with the power amplifier in a variable gain mode and the other of the modulation formats operates with the power amplifier in a fixed gain mode, where one of the plurality of control signals sets the power amplifier gain mode and is ramped by said control unit

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during the guard period.

29. (New) A dual mode multi-timeslot RF transmitter as in claim 25, where one of the modulation formats is 8-PSK, and where the other of the modulation formats is GMSK.

30. (New) An electronic device for operation in a wireless communication system, comprising a dual mode multi-timeslot RF transmitter comprising a programmable power amplifier and a control unit outputting control signals to said programmable power amplifier, said control unit operating, prior to a first timeslot, for setting a plurality of control signals for the RF transmitter in accordance with a first modulation format used during the first timeslot and, during a guard period between the first timeslot and a next, temporally adjacent timeslot, for setting the plurality of control signals for the RF transmitter in accordance with a second modulation format used during the second timeslot, where the first modulation format differs from the second modulation format, where one of the plurality of control signals is coupled to variable gain circuit having an output that is coupled to an input of the programmable power amplifier, where one of the plurality of control signals sets a programmable power amplifier mode of operation, and where the mode of operation is one of variable gain and fixed gain.

31. (New) An electronic device as in claim 30, where one of the plurality of control signals sets a quiescent current of the programmable power amplifier.

32. (New) An electronic device as in claim 30, where at least one of the plurality of control signals controls the gain of the programmable power amplifier.

33. (New) An electronic device as in claim 30, where one of the modulation formats operates with the programmable power amplifier in a variable gain mode and the other of the modulation formats operates with the programmable power amplifier in a fixed gain mode, where one of the plurality of control signals sets the programmable power amplifier gain mode and is ramped by said control unit during the guard period.

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34. (New) An electronic device as in claim 30, where one of the modulation formats is 8-PSK, and where the other of the modulation formats is GMSK.

35. (New) An RF transmitter comprising programmable power amplifier means and control means for outputting control signals to said programmable power amplifier means, said control means operating, prior to a first timeslot, for setting a plurality of control signals for the RF transmitter in accordance with a first modulation format used during the first timeslot and, during a guard period between the first timeslot and a next, temporally adjacent timeslot, for setting the plurality of control signals for the RF transmitter in accordance with a second modulation format used during the second timeslot, where the first modulation format differs from the second modulation format, where one of the plurality of control signals is coupled to variable gain means having an output that is coupled to an input of the programmable power amplifier means, where one of the plurality of control signals sets a mode of operation of the programmable power amplifier means, and where the mode of operation is one of variable gain and fixed gain.

36. (New) An RF transmitter as in claim 35, where one of the plurality of control signals sets a quiescent current of the programmable power amplifier means, and where at least one of the plurality of control signals controls the gain of the programmable power amplifier means.

37. (New) An RF transmitter as in claim 35, where one of the modulation formats operates with the programmable power amplifier means in a variable gain mode and the other of the modulation formats operates with the programmable power amplifier means in a fixed gain mode, where one of the plurality of control signals sets the gain mode of the programmable power amplifier means and is ramped by the control means during the guard period.

38. (New) An RF transmitter as in claim 35, where one of the modulation formats is 8-PSK, and where the other of the modulation formats is GMSK.

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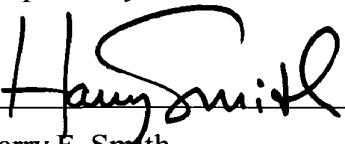
### REMARKS

Originally filed claims 1-19 are cancelled and claims 20-38 are newly added. The independent claims are similar to the claims that were allowed in the parent application. Note in this regard that the "RF attenuator" does not appear in the independent claims and, instead, the claims refer to a "variable gain element" (claim 20), a "variable gain amplifier" (claim 25), a "variable gain circuit" (claim 30), and a "variable gain means" (claim 35). Support for the claimed subject matter is found throughout the specification and drawings, such as in Figures 1A and 1B, element 24.

The attached PTO-1449 makes of record the references that are of record in the allowed parent application. The Examiner is respectfully requested to consider these references and to make them of record in this continuation application.

The Examiner is also respectfully requested to favorably consider the new claims submitted herewith, and to allow all of the now pending claims. An early notification of the allowability of claims 20-38 is earnestly solicited.

Respectfully submitted:

  
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**AMENDMENTS TO THE DRAWINGS:**

In the Figures there are seven sheets of formal drawings included that should replace the informal drawings that formed a part of the original patent application filing.

Attachment: Replacement Sheets 7



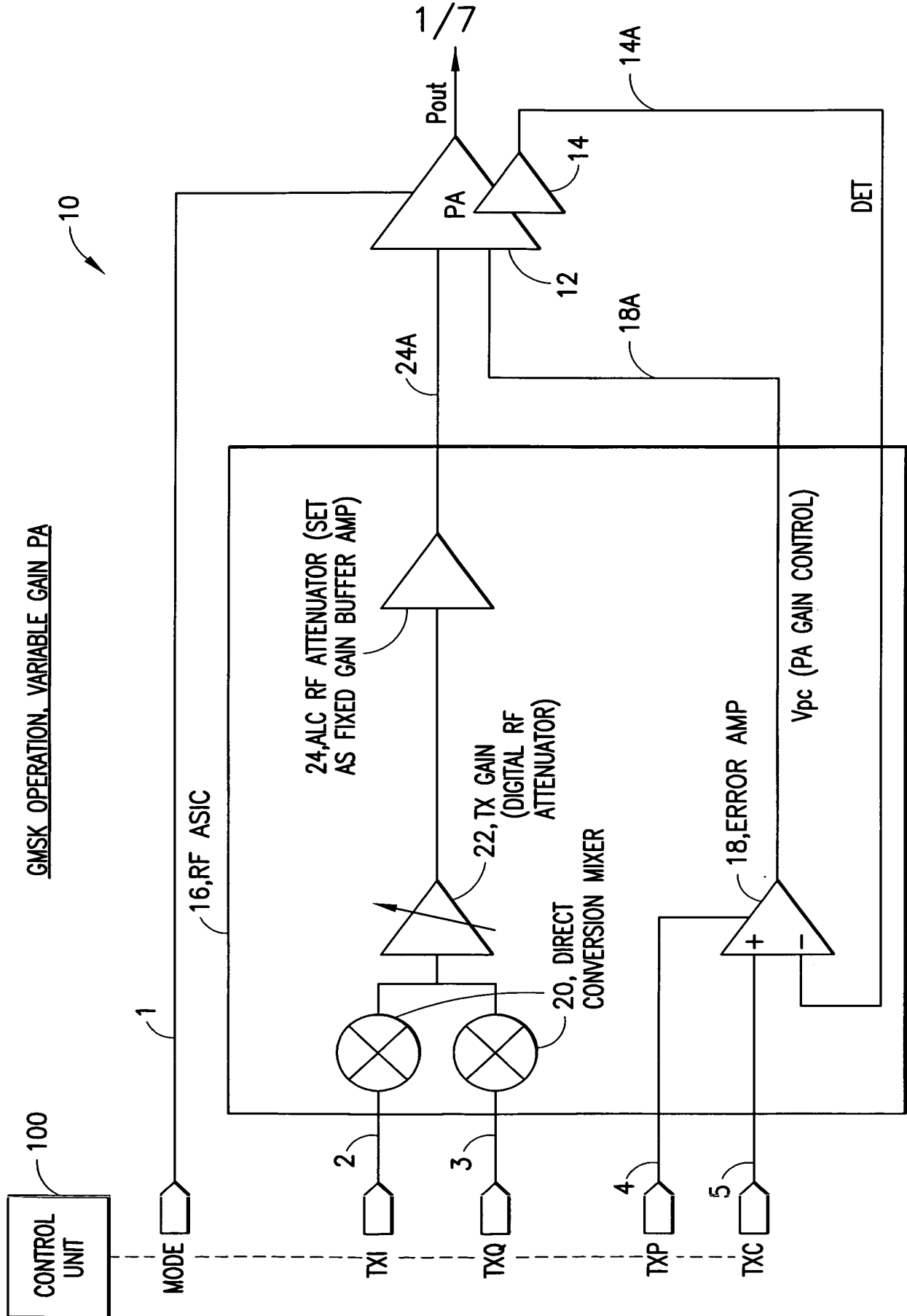


FIG. 1A

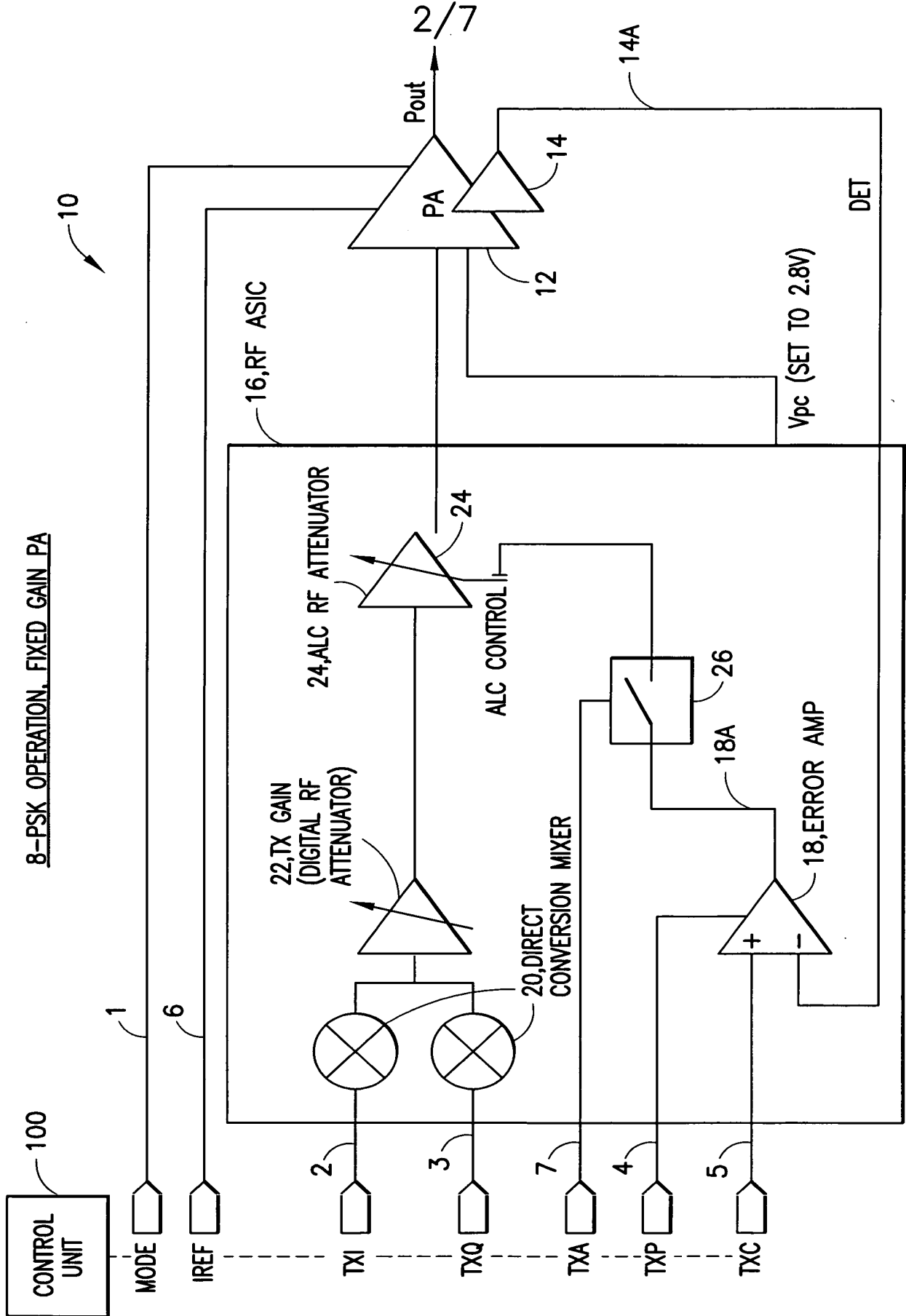


FIG. 1B

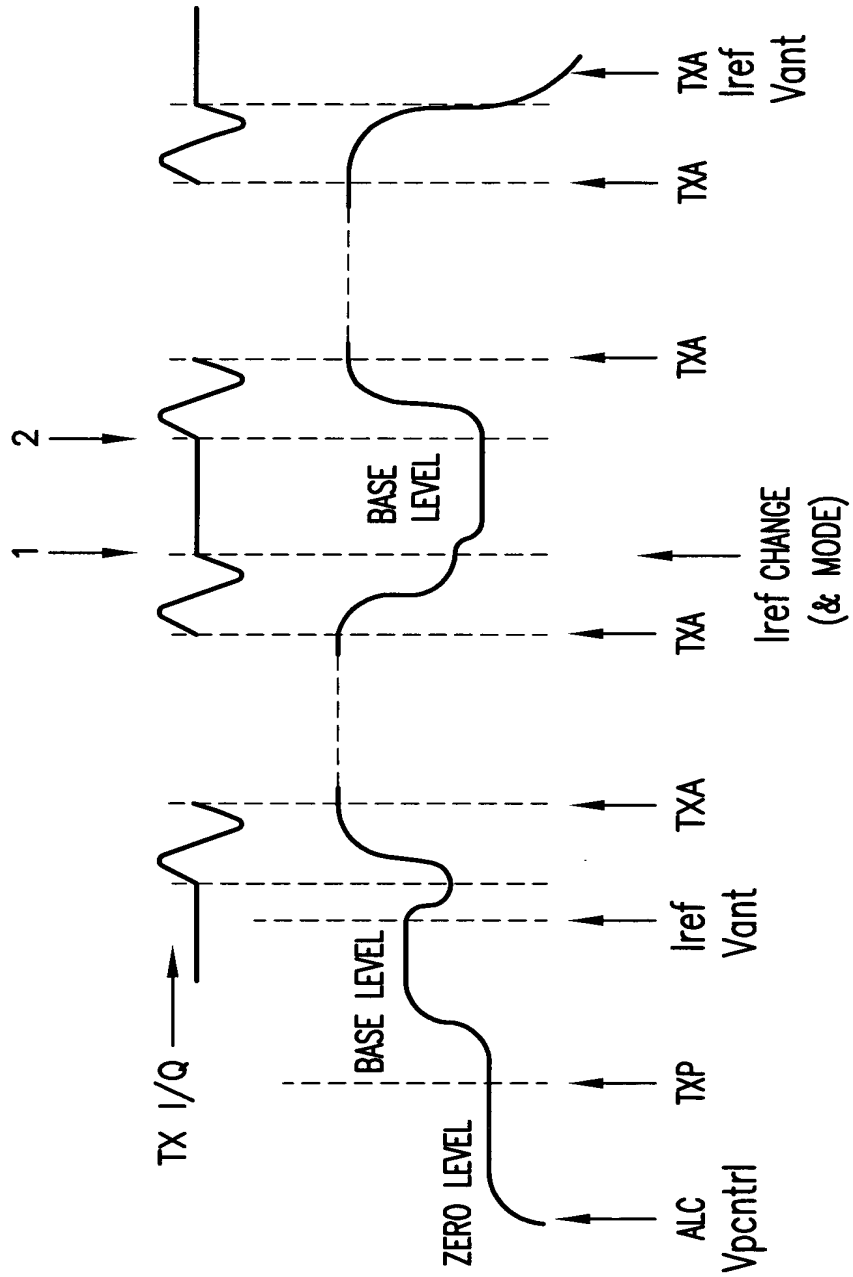


FIG.2

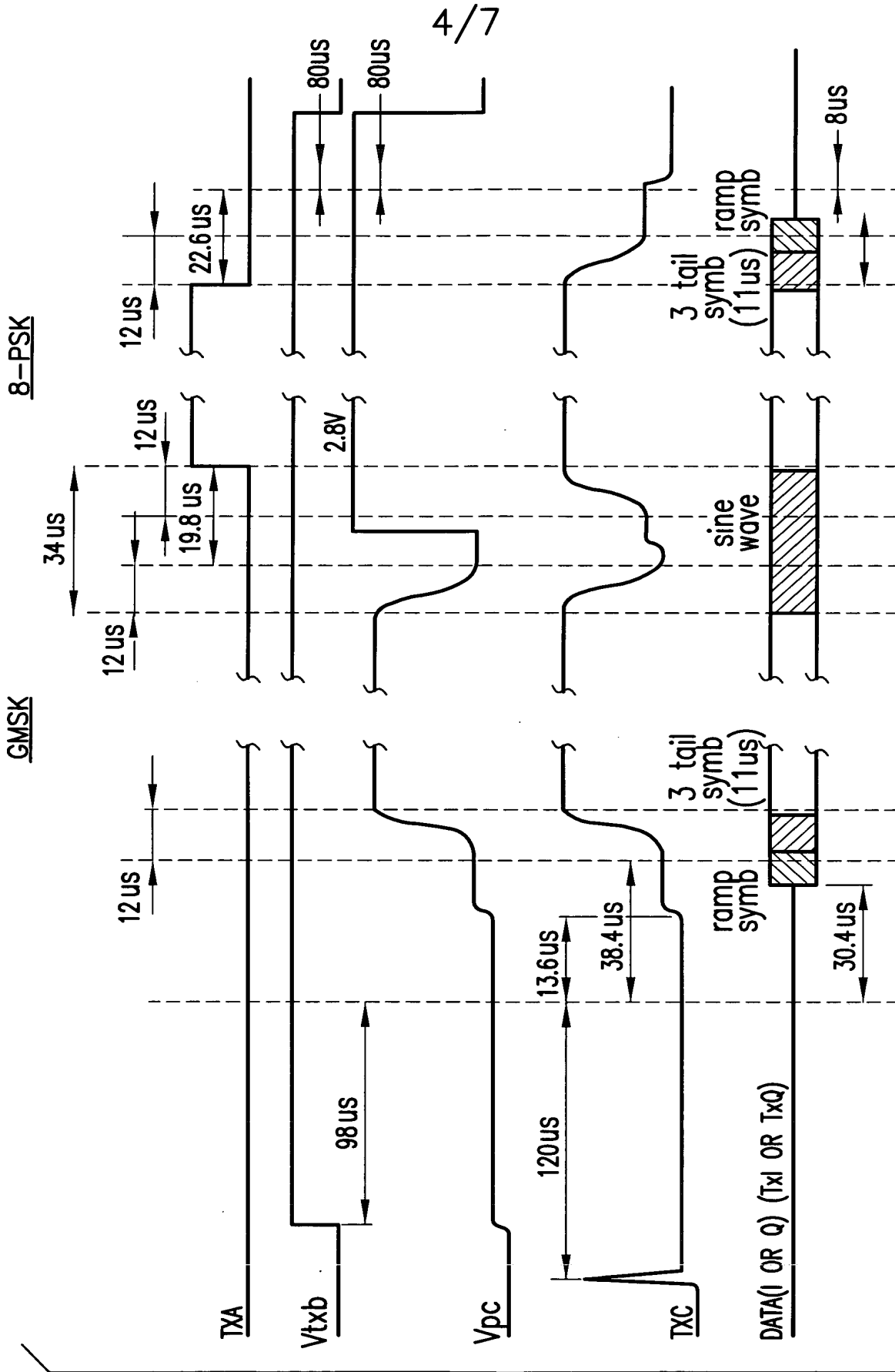


FIG.3A

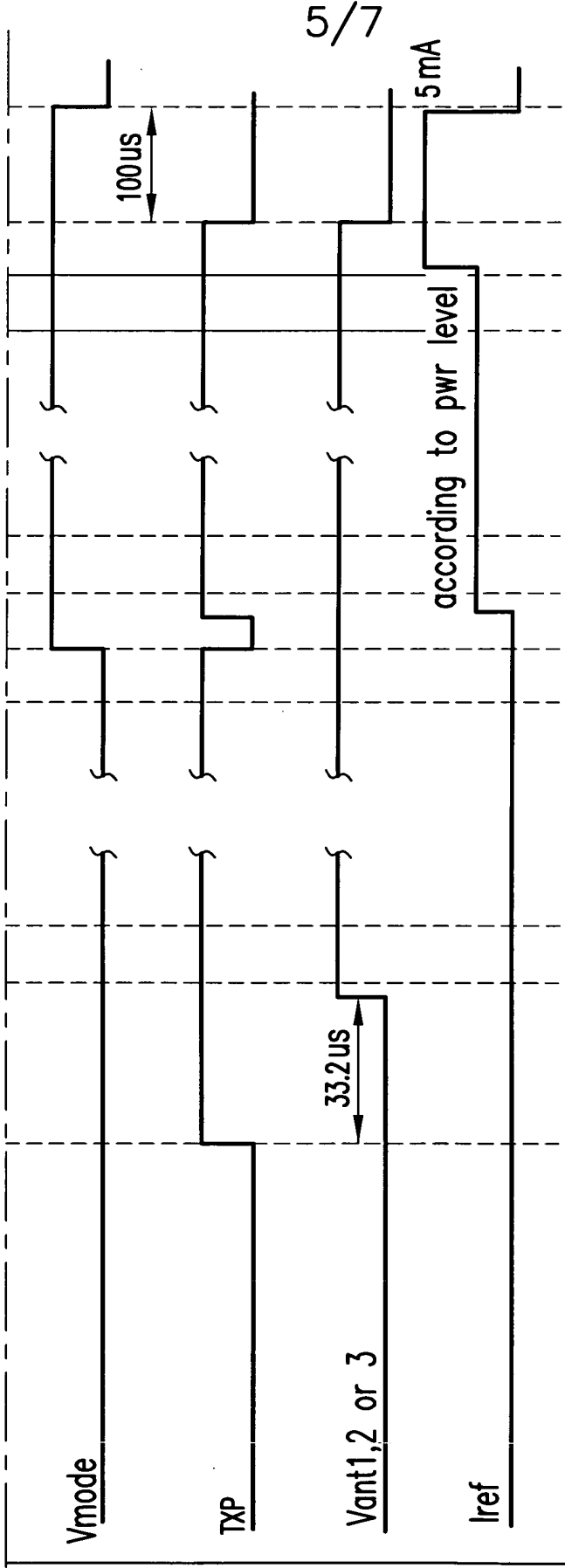


FIG.3B

FIG.3A
FIG.3B

FIG.3

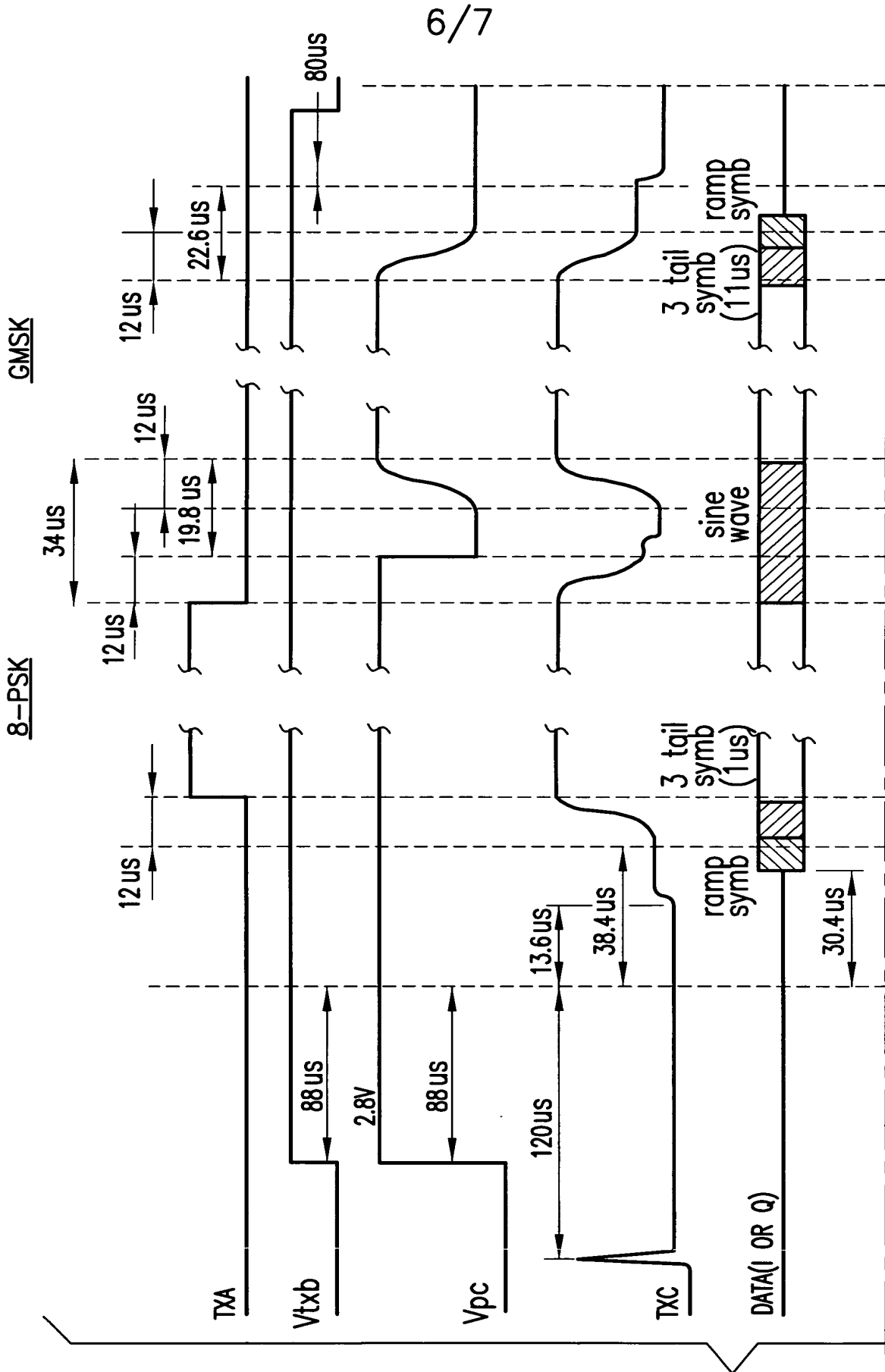


FIG.4A

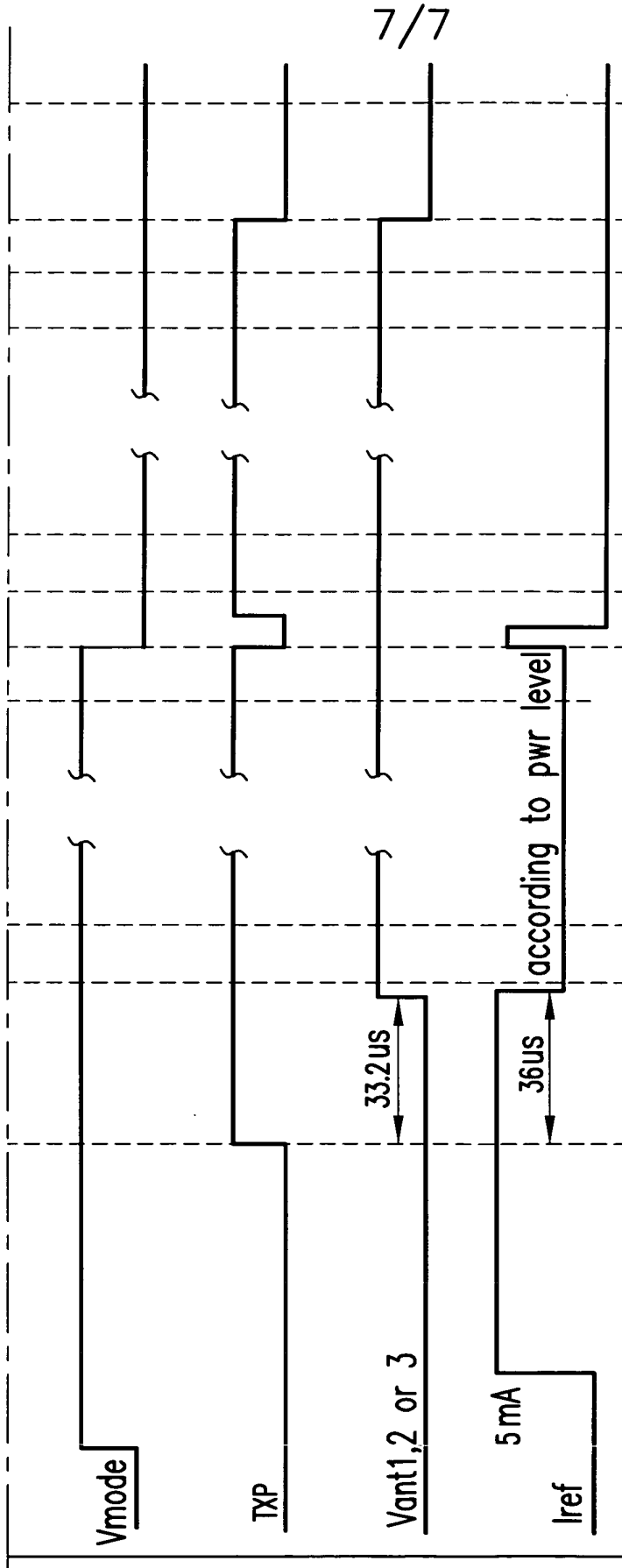


FIG.4B

FIG.4A
FIG.4B

FIG.4