

# Exhibit 1



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**Futagi et al.**

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(54) **RADIO TRANSMISSION APPARATUS, AND  
RADIO TRANSMISSION METHOD**

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**H04L 12/26** (2006.01)

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375/302, 308, 224, 225, 295, 299; 455/69,  
455/67.11, 102, 450, 452.2, 29, 42, 61, 68  
See application file for complete search history.

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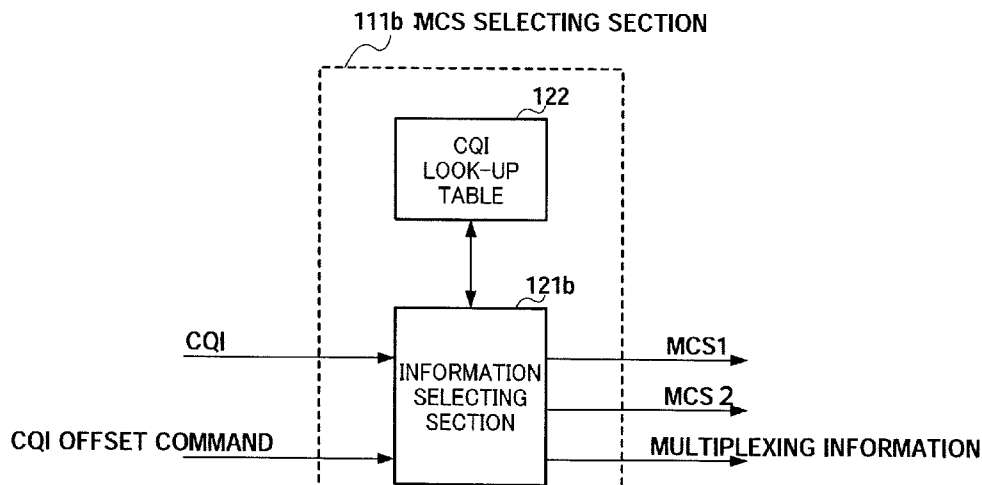
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(57)

**ABSTRACT**

Provided is a communication device, which is enabled to improve the throughput of a communication system by reducing the difference of a transmission power between an SCCH and an SDCH thereby to satisfy the required quality of a PAPR. In this device, an MCS selection unit (111) of a transmission unit (110) decides, with reference to a CQI lookup table, an MCS pattern (MCS1) of the SDCH, an MCS pattern (MCS2) of the SCCH and information (multiplex information) on multiplex positions on the time axes of those two channels, on the basis of the CQI information. On the basis of the MCS2 and the MCS1, encoding modulation units (112 and 113) perform encoding and modulating operations. According to the multiplex information, a channel multiplexing unit (114) time-division multiplexes the SCCH and the SDCH thereby to generate a transmission signal.

**4 Claims, 13 Drawing Sheets**



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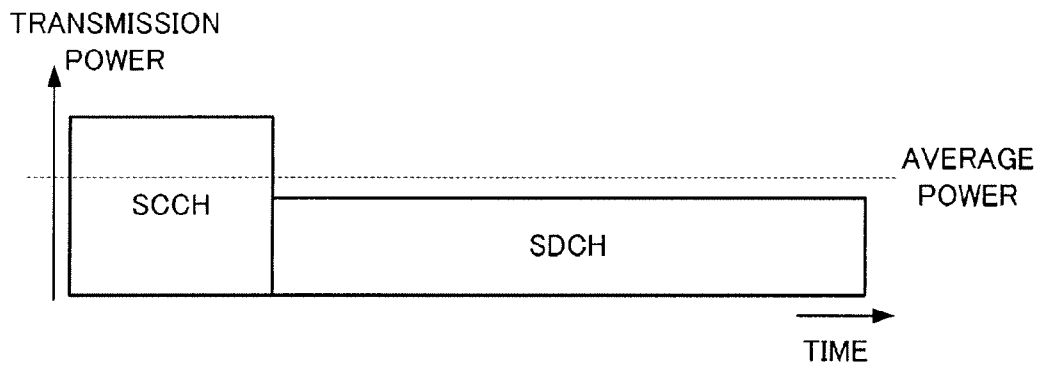


FIG.1

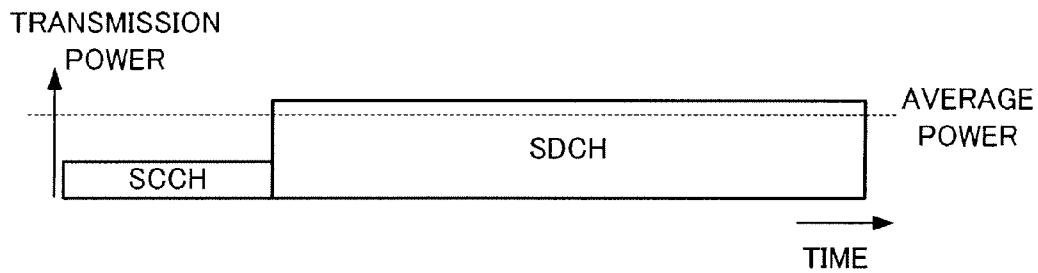


FIG.2

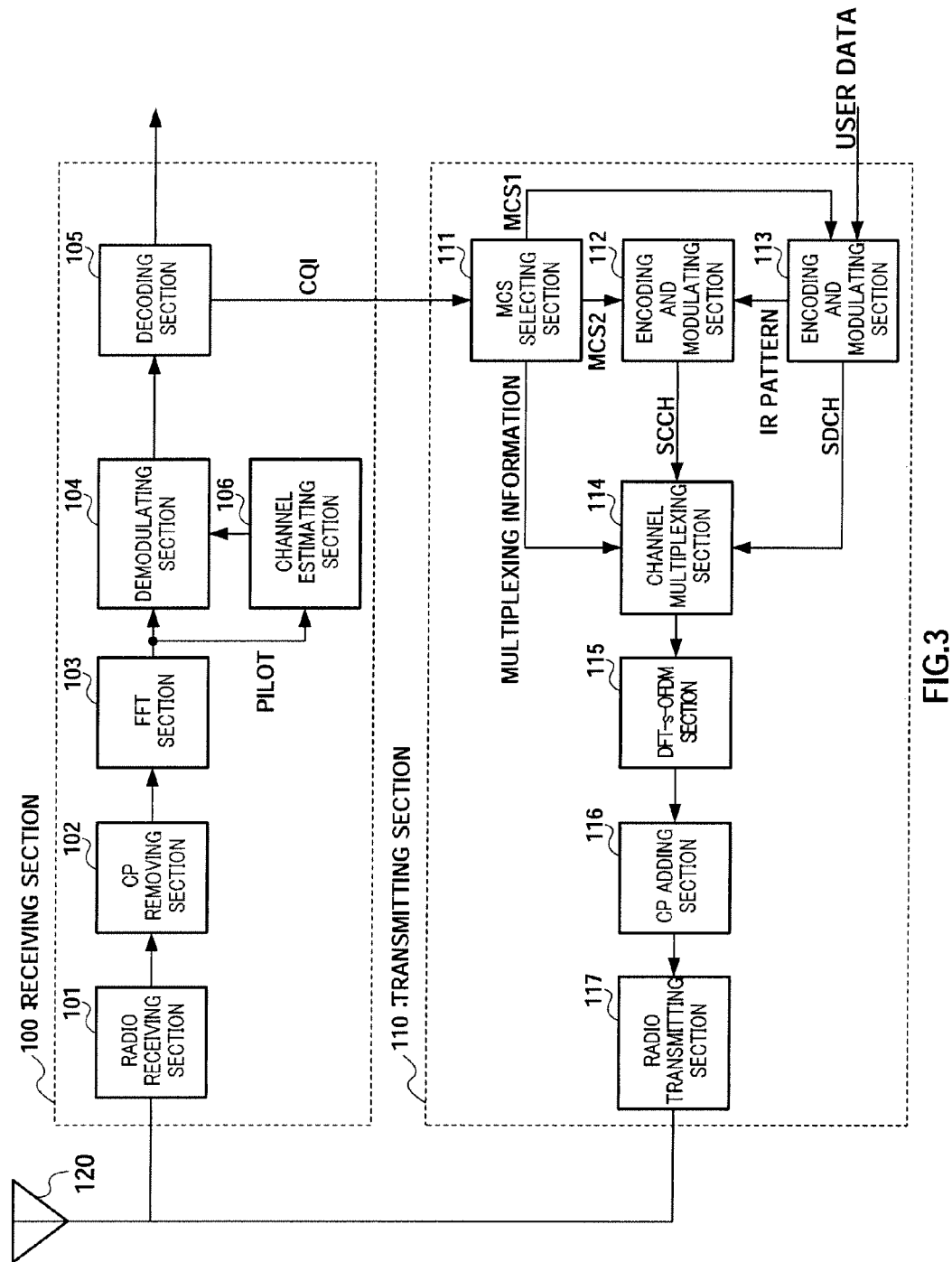


FIG.3



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