

(12) 按照专利合作条约所公布的国际申请

(19) 世界知识产权组织
国际局



(10) 国际公布号
WO 2025/260382 A1

(43) 国际公布日
2025 年 12 月 26 日 (26.12.2025)

(51) 国际专利分类号:
H03F 1/32 (2006.01)

(21) 国际申请号: PCT/CN2024/100805

(22) 国际申请日: 2024 年 6 月 21 日 (21.06.2024)

(25) 申请语言: 中文

(26) 公布语言: 中文

(30) 优先权:
202410803976.6 2024年6月20日 (20.06.2024) CN

(71) 申请人: 物广科学技术有限公司 (WUGUANG TECHNOLOGIES PTE. LTD.) [SG/SG]; 新加坡新加坡帕亚-勒巴尔路 60 号 #11-53 新加坡巴雅广场 409051 (SG)。厚元电子科技有限公司 (ACCULA ELECTRONIC TECHNOLOGIES PTE. LTD.) [SG/SG]; 新加坡新加坡泳滩路 15 号 05-08 号泳滨中心 189677 (SG)。悟元信息系统科技有限公司 (AVALEN INFO SYSTEM TECHNOLOGIES COMPANY LIMITED) [CA/CA]; 加拿大不列颠哥伦比亚温哥华市巴拉德街街 200 号滨水中心 1200

V6C 3L6 (CA)。本哲科技有限公司 (WISDOR TECHNOLOGIES PTE. LTD.) [SG/SG]; 新加坡新加坡红山中心 1003 号 5 楼 7 室 159836 (SG)。元置科技有限公司 (ONEANY TECHNOLOGIES COMPANY LIMITED) [CN/CN]; 中国香港特别行政区九龙骏业街 46 号广域创科中心 8 楼 1 室 999077 (CN)。

(72) 发明人: 孟庆南 (MENG, Qingnan); 中国湖北省武汉市洪山区石牌岭东一路 27-2-6 号 430070 (CN)。

(74) 代理人: 北京品源专利代理有限公司 (BEYOND ATTORNEYS AT LAW); 中国北京市海淀区莲花池东路 39 号西金大厦 6 层 100036 (CN)。

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(54) Title: POWER AMPLIFICATION CIRCUIT WITH SIMILAR COMBINING AND CANCELLATION

(54) 发明名称: 一种相似合路及抵消的功率放大电路

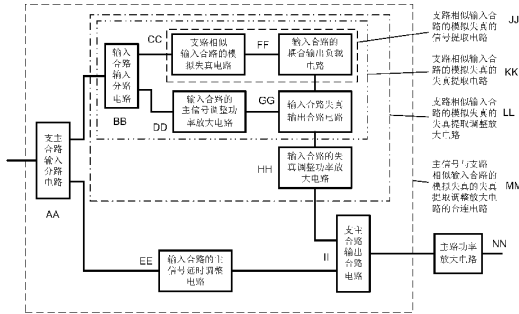


图 1

- AA Input splitting circuit for branch-main combining
BB Input splitting circuit for input combining
CC Analog distortion circuit for branch similar input combining
DD Main-signal adjustment power amplification circuit for input combining
EE Main-signal delay adjustment circuit for input combining
FF Coupled output load circuit for input combining
GG Distortion output combining circuit for input combining
HH Distortion adjustment power amplification circuit for input combining
II Output combining circuit for branch-main combining
JJ Signal extraction circuit for analog distortion of branch similar input combining
KK Distortion extraction circuit for analog distortion of branch similar input combining
LL Distortion extraction, adjustment and amplification circuit for analog distortion of branch similar input combining
MM Combined-connection circuit of the distortion extraction, adjustment and amplification circuit for analog distortion of main-signal and branch similar input combining
NN Main power amplification circuit

(57) Abstract: Provided in the present disclosure is a power amplification circuit with similar combining and cancellation. An output end of a parallel or series circuit for main-signal-branch similar input combining and input cancellation is connected to a main power amplification circuit, so as to form a power amplification circuit with similar combining and cancellation that has the function of a combined main circuit with branch similar input combining and input cancellation; and an output end of a combined-connection circuit for main-signal and branch similar input combining in the parallel or series circuit for main-signal-branch similar input combining and input cancellation is connected to an input end of the main power amplification circuit, so as to form a combined main circuit for branch similar input combining and a main signal. The present disclosure improves the linear ACPR value of a Class-C-like main power signal to 30-35 dBc or more after gain linear extension of a main power signal of a combined circuit for branch similar input combining and a main signal, and also improves the linear ACPR value of a Class-C-like main power signal to 40-45 dBc or more after gain linear extension of a main power signal of a combined main circuit with branch similar input combining and cancellation.

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- (84) 指定国(除另有指明, 要求每一种可提供的地区保护): ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST, SZ, TZ, UG, ZM, ZW), 欧亚 (AM, AZ, BY, KG, KZ, RU, TJ, TM), 欧洲 (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG)。

本国际公布:

— 包括国际检索报告(条约第21条(3))。

(57) 摘要: 本公开提供了一种相似合路及抵消的功率放大电路, 通过主信号支路相似输入合路及输入抵消的并联或串联电路输出端连接主路功率放大电路, 组成具有支路相似输入合路与输入抵消的合路主路电路功能的一种相似合路及抵消的功率放大电路, 主信号支路相似输入合路及输入抵消的并联或串联电路中的主信号与支路相似输入合路的合连电路输出端与主路功率放大电路输入端连接, 组成支路相似输入合路与主信号的合路主路电路。本公开提高支路相似输入合路与主信号的合路电路主功率信号的增益线性扩展的类似C类的主功率信号的线性ACPR值至30~35dBc以上, 同时提高支路相似输入合路与抵消合路主路电路的主功率信号的增益线性扩展的类似C类主功率信号的线性ACPR值至40~45dBc以上。