Songbai He

List of Publications by Year
in descending order

140	1,711	304743	330143
papers	citations	22 h-index	37 g-index

140	140	140	848
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Post-Matching Doherty Power Amplifier Employing Low-Order Impedance Inverters for Broadband Applications. IEEE Transactions on Microwave Theory and Techniques, 2015, 63, 4061-4071.	4.6	139
2	A New Distributed Parameter Broadband Matching Method for Power Amplifier via Real Frequency Technique. IEEE Transactions on Microwave Theory and Techniques, 2015, 63, 449-458.	4.6	95
3	Broadband Continuous-Mode Doherty Power Amplifiers With Noninfinity Peaking Impedance. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 1034-1046.	4.6	84
4	Design of a Post-Matching Asymmetric Doherty Power Amplifier for Broadband Applications. IEEE Microwave and Wireless Components Letters, 2016, 26, 52-54.	3.2	74
5	Design of Broadband High-Efficiency Power Amplifiers Based on a Series of Continuous Modes. IEEE Microwave and Wireless Components Letters, 2014, 24, 631-633.	3.2	73
6	A 60-GHz 19.8-mW Current-Reuse Active Phase Shifter With Tunable Current-Splitting Technique in 90-nm CMOS. IEEE Transactions on Microwave Theory and Techniques, 2016, 64, 1572-1584.	4.6	54
7	The Influence of the Output Impedances of Peaking Power Amplifier on Broadband Doherty Amplifiers. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 3002-3013.	4.6	54
8	Design of Broadband Modified Class-J Doherty Power Amplifier With Specific Second Harmonic Terminations. IEEE Access, 2018, 6, 2531-2540.	4.2	54
9	A Series of Inverse Continuous Modes for Designing Broadband Power Amplifiers. IEEE Microwave and Wireless Components Letters, 2016, 26, 525-527.	3.2	51
10	Extend the Class-B to Class-J Continuum Mode by Adding Arbitrary Harmonic Voltage Elements. IEEE Microwave and Wireless Components Letters, 2016, 26, 522-524.	3.2	44
11	Design of Broadband High-Efficiency Power Amplifiers Based on the Hybrid Continuous Modes With Phase Shift Parameter. IEEE Microwave and Wireless Components Letters, 2018, 28, 159-161.	3.2	40
12	A Novel Design of Concurrent Dual-Band High Efficiency Power Amplifiers With Harmonic Control Circuits. IEEE Microwave and Wireless Components Letters, 2016, 26, 137-139.	3.2	37
13	Design of Broadband Power Amplifiers Based on Resistive-Reactive Series of Continuous Modes. IEEE Microwave and Wireless Components Letters, 2016, 26, 519-521.	3.2	36
14	Codesign of High-Efficiency Power Amplifier and Ring-Resonator Filter Based on a Series of Continuous Modes and Evenâ€“Odd-Mode Analysis. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 2867-2878.	4.6	34
15	Simulated Annealing Particle Swarm Optimization for High-Efficiency Power Amplifier Design. IEEE Transactions on Microwave Theory and Techniques, 2021, 69, 2494-2505.	4.6	30
16	High-Efficiency Single-Ended Class-${hbox{E/F}}_{2}$ Power Amplifier With Finite DC Feed Inductor. IEEE Transactions on Microwave Theory and Techniques, 2010, 58, 32-40.	4.6	29
17	1.7/2.6ÂGHz highâ€efficiency concurrent dualâ€band power amplifier with dualâ€band harmonic wave controlled transformer. Electronics Letters, 2014, 50, 184-185.	1.0	27
18	Digital Predistortion for Power Amplifier Based on Sparse Bayesian Learning. IEEE Transactions on Circuits and Systems II: Express Briefs, 2016, 63, 828-832.	3.0	27

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19	Power Up Potential Power Amplifier Technologies for 5G Applications. IEEE Microwave Magazine, 2019, 20, 89-101.	0.8	27
20	A Semianalytical Matching Approach for Power Amplifier With Extended Chebyshev Function and Real Frequency Technique. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 3892-3902.	4.6	26
21	Subâ€optimal matching method for dualâ€band classâ€J power amplifier using real frequency technique. IET Microwaves, Antennas and Propagation, 2017, 11, 1218-1226.	1.4	26
22	Design of continuousâ€mode GaN power amplifier with compact fundamental impedance solutions on package plane. IET Microwaves, Antennas and Propagation, 2016, 10, 1056-1064.	1.4	24
23	A 1.8â€“3.4-GHz Bandwidth-Improved Reconfigurable Mode Doherty Power Amplifier Utilizing Switches. IEEE Microwave and Wireless Components Letters, 2020, 30, 102-105.	3.2	24
24	Broadband GaN MMIC Doherty Power Amplifier Using Continuous-Mode Combining for 5G Sub-6 GHz Applications. IEEE Journal of Solid-State Circuits, 2022, 57, 2143-2154.	5.4	23
25	Novel Unequal Dividing Power Divider With 50 Characteristic Impedance Lines. IEEE Microwave and Wireless Components Letters, 2016, 26, 180-182.	3.2	21
26	Design and Analysis of Continuous-Mode Doherty Power Amplifier With Second Harmonic Control. IEEE Transactions on Circuits and Systems II: Express Briefs, 2021, 68, 2247-2251.	3.0	21
27	Design of Broadband Linear and Efficient Power Amplifier for Long-Term Evolution Applications. IEEE Microwave and Wireless Components Letters, 2013, 23, 653-655.	3.2	20
28	An open-loop digital predistorter based on memory polynomial inverses for linearization of RF power amplifier. International Journal of RF and Microwave Computer-Aided Engineering, 2011, 21, 589-595.	1.2	19
29	Digital Dual-Input Doherty Configuration for Ultrawideband Application. IEEE Transactions on Industrial Electronics, 2020, 67, 7509-7518.	7.9	19
30	Performance Study of a Class-E Power Amplifier With Tuned Series-Parallel Resonance Network. IEEE Transactions on Microwave Theory and Techniques, 2008, 56, 2190-2200.	4.6	18
31	Extending highâ€efficiency power range of symmetrical Doherty power amplifiers by taking advantage of peaking stage. IET Microwaves, Antennas and Propagation, 2017, 11, 1296-1302.	1.4	18
32	Independently Tunable Linearizer Based on Characteristic Self-Compensation of Amplitude and Phase. IEEE Access, 2019, 7, 131188-131200.	4.2	18
33	A 3.3â€“4.3-GHz High-Efficiency Broadband Doherty Power Amplifier. IEEE Microwave and Wireless Components Letters, 2020, 30, 1081-1084.	3.2	15
34	Semiâ€analytic design method for dualâ€band power amplifiers. Electronics Letters, 2015, 51, 1336-1337.	1.0	14
35	Further Efficiency Improvement of Power Amplifiers Using Thermal Energy Harvesting. IEEE Transactions on Industrial Electronics, 2019, 66, 9628-9631.	7.9	14
36	Design of Broadband High-Efficiency Power Amplifier Through Interpolations on Continuous Operation-Modes. IEEE Access, 2019, 7, 10663-10671.	4.2	14

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37	An Improved Signal Reconstruction of Modulated Wideband Converter Using a Sensing Matrix Built upon Synchronized Modulated Signals. Circuits, Systems, and Signal Processing, 2019, 38, 3187-3210.	2.0	13
38	Test bed for characterization and predistortion of power amplifiers. International Journal of RF and Microwave Computer-Aided Engineering, 2013, 23, 74-82.	1.2	12
39	Investigation of Inverse Class-E Power Amplifier at Sub-Nominal Condition for Any Duty Ratio. IEEE Transactions on Circuits and Systems I: Regular Papers, 2015, 62, 1015-1024.	5.4	12
40	The Effects of Limited Drain Current and On Resistance on the Performance of an LDMOS Inverse Class-E Power Amplifier. IEEE Transactions on Microwave Theory and Techniques, 2009, 57, 336-343.	4.6	11
41	A 0.25â€“1.25-GHz High-Efficiency Power Amplifier With Computer-Aided Design Based on Optimized Impedance Solution Continuum. IEEE Microwave and Wireless Components Letters, 2018, 28, 443-445.	3.2	11
42	A 2.4/3.5/5.2/5.8â€GHz quadâ€band BPF using SLRs and triangular loop resonators. Electronics Letters, 2018, 54, 299-301.	1.0	11
43	Canceling Intermodulation Products: A High-Efficiency and Linear-Asymmetric Doherty PA. IEEE Microwave Magazine, 2019, 20, 98-103.	0.8	11
44	Complex radial basis function networks trained by QR-decomposition recursive least square algorithms applied in behavioral modeling of nonlinear power amplifiers. International Journal of RF and Microwave Computer-Aided Engineering, 2009, 19, 634-646.	1.2	10
45	Design of Broadband Compressed Sampling Receiver Based on Concurrent Alternate Random Sequences. IEEE Access, 2019, 7, 135525-135538.	4.2	10
46	High-Efficiency Power Amplifier Employing Minimum-Power Harmonic Active Load Modulator. IEEE Transactions on Circuits and Systems II: Express Briefs, 2019, 66, 1371-1375.	3.0	10
47	Co-Design of Matching Sub-Networks to Realize Broadband Symmetrical Doherty With Configurable Back-Off Region. IEEE Transactions on Circuits and Systems II: Express Briefs, 2020, 67, 1730-1734.	3.0	10
48	Analog Predistorter Averaged Digital Predistortion for Power Amplifiers in Hybrid Beam-Forming Multi-Input Multi-Output Transmitter. IEEE Access, 2020, 8, 146145-146153.	4.2	10
49	Design of a Self-Driving Transistor-Based RF-DC Converter Based on Optimized Harmonic-Tuned Rectification Waveforms. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 4433-4444.	4.6	10
50	Analysis of a Broadband High-Efficiency Switch-Mode $Delta Sigma $ Supply Modulator Based on a Class-E Amplifier and a Class-E Rectifier. IEEE Transactions on Microwave Theory and Techniques, 2013, 61, 2934-2948.	4.6	9
51	A Direct Solving Approach for High-Order Power Amplifier Matching Network Design. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 3278-3286.	4.6	9
52	Broadband Doherty Power Amplifier With Transferable Continuous Mode. IEEE Access, 2020, 8, 99485-99494.	4.2	9
53	Analysis of Inverse Class-E Power Amplifier at Subnominal Condition With 50% Duty Ratio. IEEE Transactions on Circuits and Systems II: Express Briefs, 2015, 62, 342-346.	3.0	8
54	Broadband high-efficiency power amplifiers design based on hybrid continuous modes utilizing the optimal impedances at package plane. , 2015, , .		8

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55	A 0.4â€“2.3ÂGHz broadband power amplifier extended continuous class-F design technology. International Journal of Electronics, 2015, 102, 1320-1333.	1.4	8
56	Harmonicâ€tuned continuum mode active load modulation output combiner for the design of broadband asymmetric Doherty power amplifiers. IET Microwaves, Antennas and Propagation, 2019, 13, 1226-1234.	1.4	8
57	C-band general Class-J power amplifier using GaN HEMT. IEICE Electronics Express, 2016, 13, 20160483-20160483.	0.8	7
58	A Simplified Sparse Parameter Identification Algorithm Suitable for Power Amplifier Behavioral Modeling. IEEE Microwave and Wireless Components Letters, 2017, 27, 290-292.	3.2	7
59	Dynamic deviation memory polynomial model for digital predistortion. Electronics Letters, 2017, 53, 606-607.	1.0	7
60	Simulated Annealing Particle Swarm Optimization for a Dual-Input Broadband GaN Doherty Like Load-Modulated Balance Amplifier Design. IEEE Transactions on Circuits and Systems II: Express Briefs, 2022, 69, 3734-3738.	3.0	7
61	A Wide Stopband Dual-Band Bandpass Filter Based on Asymmetrical Parallel-Coupled Transmission Line Resonator. IEEE Transactions on Microwave Theory and Techniques, 2022, 70, 3213-3223.	4.6	7
62	Configurable Independently Tunable Linearizer for Doherty Power Amplifiers. IEEE Microwave and Wireless Components Letters, 2020, 30, 1077-1080.	3.2	6
63	Design of a C-Band High Efficiency Power Amplifier With Compact Harmonic Control Network. IEEE Microwave and Wireless Components Letters, 2021, 31, 1059-1062.	3.2	6
64	Lowpass Network Synthesis Using â€œFeldtkeller Correction Approachâ€. IEEE Access, 2019, 7, 27970-27982.	4.2	5
65	Design of continuous highâ€efficiency broadband linear power amplifier using twoâ€tone signal analysis. Microwave and Optical Technology Letters, 2020, 62, 147-151.	1.4	5
66	Adaptive Signal Separation for Dual-Input Doherty Power Amplifier. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 121-131.	4.6	5
67	A quadâ€band bandpass filter using splitâ€ring based on Tâ€shaped stubâ€loaded stepâ€impedance resonators. Microwave and Optical Technology Letters, 2017, 59, 2098-2104.	1.4	4
68	Multi-cell harmonics and intermodulation compensation architecture for concurrent dual-band transmitters. , 2017, , .		4
69	Transparent 5.8 GHz filter based on graphene. , 2017, , .		4
70	Compressive sensingâ€based adaptive sparse predistorter design for power amplifier linearization. International Journal of Circuit Theory and Applications, 2018, 46, 812-826.	2.0	4
71	Group Digital Predistortion With Step Uniformization for Hybrid Beamforming Transmitters. IEEE Microwave and Wireless Components Letters, 2021, 31, 88-91.	3.2	4
72	Analysis of third-order charge pump PLL. , 0, , .		3

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73	Class E power amplifier design with a modified load network. , 2008, , .		3
74	A 2.14GHz high efficiency GaAs pHEMT quasi class E transmission-line power amplifier. , 2008, , .		3
75	A memory polynomial predistorter for compensation of nonlinearity with memory effects in WCDMA transmitters. , 2009, , .		3
76	Extended theoretical analysis method on the performance of high-efficiency power amplifiers by solving nonlinear waveform determination process. International Journal of RF and Microwave Computer-Aided Engineering, 2017, 27, e21073.	1.2	3
77	Coâ€design of twoâ€way doherty power amplifier and filter for concurrent dualâ€band application. Microwave and Optical Technology Letters, 2017, 59, 530-533.	1.4	3
78	Design of Broadband Doherty Power Amplifier with Extended Efficiency Range Employing Asymmetric Structure. , 2018, , .		3
79	An Accurate Three-Input Nonlinear Model for Joint Compensation of Frequency-Dependent I/Q Imbalance and Power Amplifier Distortion. IEEE Access, 2019, 7, 140651-140664.	4.2	3
80	Broadband linearizer based on equivalent powerâ€dependent impedance function of diode and load match network. Microwave and Optical Technology Letters, 2021, 63, 499-503.	1.4	3
81	Under-Sampling Digital Predistortion of Power Amplifier Using Multi-Tone Mixing Feedback Technique. IEEE Transactions on Microwave Theory and Techniques, 2022, 70, 490-501.	4.6	3
82	A High-Gain Doherty Power Amplifier With Harmonic Tuning. IEEE Microwave and Wireless Components Letters, 2022, 32, 320-323.	3.2	3
83	Highâ€efficiency hybrid continuous mode power amplifier with input and output harmonic engineering. International Journal of RF and Microwave Computer-Aided Engineering, 2022, 32, .	1.2	3
84	Impulsive Synchronization for T-S Fuzzy Model-based Chaotic Systems. , 2007, , .		2
85	Analysis of the feedback envelope tracking linear class E power amplifier. Analog Integrated Circuits and Signal Processing, 2010, 64, 129-136.	1.4	2
86	Performance study of an inverse class E power amplifier with series tunable parallel resonant tank. International Journal of Microwave and Wireless Technologies, 2011, 3, 405-413.	1.9	2
87	Tri-band matching technique based on characteristic impedance transformers for concurrent tri-band power amplifiers design. , 2015, , .		2
88	Concurrent tri-band power amplifier based on novel tri-band impedance transformer. IEICE Electronics Express, 2016, 13, 20160896-20160896.	0.8	2
89	A waveform-verified broadband class-E power amplifier design utilizing finite number of harmonics. , 2017, , .		2
90	Hardware Design of DC-3GHz Compressed Sensing Receiver Based on Modulated Wideband Converter. , 2018, , .		2

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91	Hybrid Analog/Digital Linearization Based on Dual- Domain Decomposition of Nonlinearity. , 2019, , .		2
92	Volterra series-based model for concurrent dual-band power amplifier using dynamic memory depth. International Journal of RF and Microwave Computer-Aided Engineering, 2019, 29, e21578.	1.2	2
93	Memory cross Volterra model for Doherty power amplifier with group delay mismatch. IEICE Electronics Express, 2021, 18, 20210064-20210064.	0.8	2
94	A design of 1 to 4 <scp>GHz</scp> broadband <scp>highâ€efficiency</scp> power amplifier with twoâ€way concurrent active load modulation method. International Journal of RF and Microwave Computer-Aided Engineering, 2021, 31, e22640.	1.2	2
95	Design of dualâ€mode high efficiency triâ€band power amplifier using input and output harmonic control technology. International Journal of RF and Microwave Computer-Aided Engineering, 2021, 31, e22790.	1.2	2
96	A simplified adaptive sparse digital preâ€distorter for joint mitigation of frequencyâ€dependent transmitter impairments. International Journal of RF and Microwave Computer-Aided Engineering, 2020, 30, e22056.	1.2	2
97	Power Scalable Behavioral Model in Digital Predistortion for Power Amplifiers. , 2020, , .		2
98	Magnitude Scaling-Based Behavioral Model for Power Amplifiers With Dynamic Power Transmission. IEEE Microwave and Wireless Components Letters, 2022, 32, 463-466.	3.2	2
99	A Dual Power Mode GaN Doherty Power Amplifier Based on Cascode Transistors. IEEE Microwave and Wireless Components Letters, 2022, 32, 414-417.	3.2	2
100	Design of a C-Band High-Efficiency Doherty Power Amplifier With Harmonic Control. IEEE Microwave and Wireless Components Letters, 2022, 32, 875-878.	3.2	2
101	Performance study of a subclass Class E power amplifier in comparison with the typical one. , 2008, , .		1
102	Design and Simulation of an Optimized DDS. , 2010, , .		1
103	A wideband sigma-delta PLL based phase modulator with pre-distortion filter. , 2012, , .		1
104	A systematic method to design high efficiency harmonic tuned power amplifier with PAE over 80%. , 2012, , .		1
105	Automated power amplifier design assisted with particle swarm optimization. , 2012, , .		1
106	The design and realization of highâ€efficiency power amplifier with drain efficiency over 80% at 3.5 GHz. Microwave and Optical Technology Letters, 2012, 54, 521-525.	1.4	1
107	Design of controllable diode PL. Electronics Letters, 2016, 52, 1712-1714.	1.0	1
108	An Interband Time-Delay Compensation Algorithm for Concurrent Dual-Band Power Amplifier Characterization. IEEE Microwave and Wireless Components Letters, 2018, 28, 332-334.	3.2	1

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109	Power Amplifier Behavioral Model Dimension Pruning Using Sparse Principal Component Analysis. , 2018, , .		1
110	A double screening orthogonal-matching-pursuit algorithm for compressed sensing receiver with high column correlation sensing matrix. IEICE Electronics Express, 2019, 16, 20190419-20190419.	0.8	1
111	Highâ€efficiency seriesâ€“parallel form hybrid envelopeâ€tracking power supply based on the optimised power losses. Electronics Letters, 2019, 55, 810-813.	1.0	1
112	Iterative Learning Control for Signal Separation in Dual-RF Input Doherty Transmitter. , 2021, , .		1
113	Design of Inverse Continuous High-efficiency Multi-Octave Power Amplifier Using Novel Distributed Matching Structure. , 2020, , .		1
114	Two-way Concurrent Dual-Band Power Amplifier at 0.9/1.8 GHz with Low Second Harmonic and Intermodulation. , 2020, , .		1
115	Segmented Statistical Error-Based Adaptive Method for Linearization of Power Amplifiers. IEEE Microwave and Wireless Components Letters, 2022, 32, 907-910.	3.2	1
116	Bandwidth adaptive behavioral model with dynamic structures for radio frequency power amplifiers. International Journal of RF and Microwave Computer-Aided Engineering, 2022, 32, .	1.2	1
117	A New Loop Control Algorithm of Feedforward Power Amplifier. , 0, , .		0
118	Modeling the nonlinear power amplifier with memory using complex-valued radial basis function networks. , 2008, , .		0
119	An approach to collector AM bandwidth of Class E power amplifier. , 2008, , .		0
120	LINC transmitter with double threshold SCS. , 2009, , .		0
121	Analysis of the effects of parasitic capacitance and inductance on inverse class E power amplifier. , 2010, , .		0
122	The FPGA implement of ADPLL without retimed clock. , 2011, , .		0
123	A feedback predistortion technique for power amplifiers based on amplitude and phase signal processing. , 2011, , .		0
124	Analysis and Modeling of the Non-ideal Performance in a Polar Transmitter Caused by Limited Bandwidth and Inaccurate Pulsewidth in a Î”Î£ Envelope Modulator. Circuits, Systems, and Signal Processing, 2013, 32, 1745-1769.	2.0	0
125	A behavioral modeling method for nonlinear systems with sparse delay characteristic. , 2013, , .		0
126	A model inverse method for memory polynomial model of power amplifiers. , 2013, , .		0

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127	A wideband phase modulation technique adopting Fractional-N Direct Digital Frequency Synthesizer. , 2014, , .		0
128	A method for designing generalized continuous power amplifier. , 2016, , .		0
129	A two-stage 0.9â€“2 GHz GaN power amplifier using commensurate transmission line. , 2016, , .		0
130	Power amplifier behavioral model adaptive pruning using conjugate gradientâ€based greedy algorithm. IEEJ Transactions on Electrical and Electronic Engineering, 2017, 12, S181.	1.4	0
131	Lowerâ€frequency feedback dualâ€band PA with very high efficiency. Electronics Letters, 2018, 54, 34-35.	1.0	0
132	Comment on â€œOn the Double-Inflection Characteristic of the Continuous-Wave AM/AM in Class-F â^'1 Power Amplifiersâ€•[Dec 18 1131-1133]. IEEE Microwave and Wireless Components Letters, 2019, 29, 569-569.	3.2	0
133	Impacts of continuous modes approach on the back-off efficiency of Doherty power amplifiers. Journal of Electromagnetic Waves and Applications, 2019, 33, 1297-1306.	1.6	0
134	Efficiency Analysis of Concurrently Driven Power Amplifiers. IEEE Access, 2020, 8, 91379-91393.	4.2	0
135	Thirdâ€order complex deltaâ€sigma modulator with arbitrary poles and zeros placement. Electronics Letters, 2020, 56, 71-73.	1.0	0
136	Comments on â€œAnalytical Formulas for the Coverage of Tunable Matching Networks for Reconfigurable Applicationsâ€• IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 827-827.	4.6	0
137	Realization of High Efficient Linear Power Amplifier with Harmonic Tuning. IEEJ Transactions on Electronics, Information and Systems, 2016, 136, 434-435.	0.2	0
138	A Compact linearizer for Independently Tuning the Gain Characteristic at C-Band. , 2020, , .		0
139	A modified broadband weighted <scp>magnitudeâ€selective</scp> behavioral model for digital predistortion of <scp>radio frequency</scp> power amplifiers. International Journal of RF and Microwave Computer-Aided Engineering, 0, , .	1.2	0
140	An Extensive Large Signal Equivalent Circuit Model of GaAs-PIN Photodiode. IEEE Electron Device Letters, 2022, 43, 1195-1198.	3.9	0