Guangdong-Hong Kong-Macao

Pearl River Delta

Regional Air Quality Monitoring Network

October to December 2025

Statistical Summary of the Fourth Quarter Monitoring Results

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1. Foreword

Since the Pearl River Delta (PRD) Regional Air Quality Monitoring Network came into operation on 30 November 2005, the PRD Regional Air Quality Index (RAQI) was reported to the public on a daily basis. Starting from 2006, half-yearly and annual air quality monitoring reports were also published every year. The network was subsequently enhanced and expanded in September 2014 and renamed to "Guangdong-Hong Kong-Macao Pearl River Delta Regional Air Quality Monitoring Network" (the "Network").

To cope with the enhancement of the network, the update of the national ambient air quality standards as well as the need for improving the reporting frequency of monitoring results, starting from 2014, the real-time hourly monitoring data was reported on a new internet platform to replace the daily RAQI, the half-yearly report was also replaced by a quarterly report while the annual air quality monitoring report was maintained. The quarterly report is a brief statistical summary of the regional air quality monitoring results in a quarter. The annual report, in addition to the reporting of the monitoring data, provides a more detailed analysis and comparison of the air quality in the year. From the fourth quarter of 2014, the statistical results of carbon monoxide (CO) and fine suspended particulates ($PM_{2.5}$ or FSP) were added to the quarterly report in addition to those of respirable suspended particulates (PM_{10} or RSP), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), and ozone (O_3).

This report is the statistical summary of the monitoring results of the PRD Regional Air Quality Monitoring Network in October to December, the fourth quarter of 2025. It is the forty-eighth report published in the form of a quarterly report and the forty-fifth report with the statistical summaries of the six pollutants (i.e. PM_{10}, $PM_{2.5}$, SO_2, NO_2, O_3 and CO).

2. Introduction to Guangdong-Hong Kong-Macao Pearl River Delta Regional Air Quality Monitoring Network

The PRD Regional Air Quality Monitoring Network was jointly established by the Former Guangdong Provincial Environmental Monitoring Centre[1] (GDEMC) and the Environmental Protection Department of the Hong Kong Special Administrative Region (HKEPD) from 2003 to 2005, and commenced its operation to report the Regional Air Quality Index (RAQI) on 30 November 2005.

With the growing concerns of air pollution control and economic development of the region, the GDEMC[1] and HKEPD had worked in collaboration with the environmental protection cum meteorological authorities of Macao to enhance the network by extending the coverage of monitoring area to Guangdong, Hong Kong and Macao in September 2014. The enhancements included the addition of monitoring stations from 16 to 23 to further improve the spatial distribution and the inclusion of two new monitoring parameters, i.e. carbon monoxide (CO) and fine suspended particulates ($PM_{2.5}$), to enrich the air quality monitoring information. At the same

[1] In 2003, when the network was established, the unit was named Guangdong Provincial Environmental Protection Monitoring Centre, which was renamed as Guangdong Provincial Environmental Monitoring Centre in 2008, and was renamed again as Guangdong Ecological and Environmental Monitoring Centre in December 2020.

time, the network was renamed to “Guangdong-Hong Kong-Macao Pearl River Delta Regional Air Quality Monitoring Network”, while the "Quality Management Committee of Guangdong-Hong Kong-Macao Pearl River Delta Regional Air Quality Monitoring Network", which was jointly established by the Ecological and Environmental Monitoring Centre of Guangdong (GDEEMC), HKEPD, Environmental Protection Bureau of Macau SARG and the Meteorological and Geophysical Bureau of Macao SARG[2], was responsible for quality management of the Network and dissemination of information.

The Network comprises 23 automatic air quality monitoring stations (see Figure 2.1) across the Guangdong-Hong Kong-Macao PRD region. Among these, eighteen stations are in the PRD, four stations in Hong Kong and one station in Macau.

All stations are installed with monitoring equipment to measure the ambient concentrations of PM_{10}, $PM_{2.5}$, SO_2, NO_2, O_3 and CO.

Annexes A and B show the site information of the monitoring stations in the Network and the methods used for measuring air pollutant concentrations respectively.

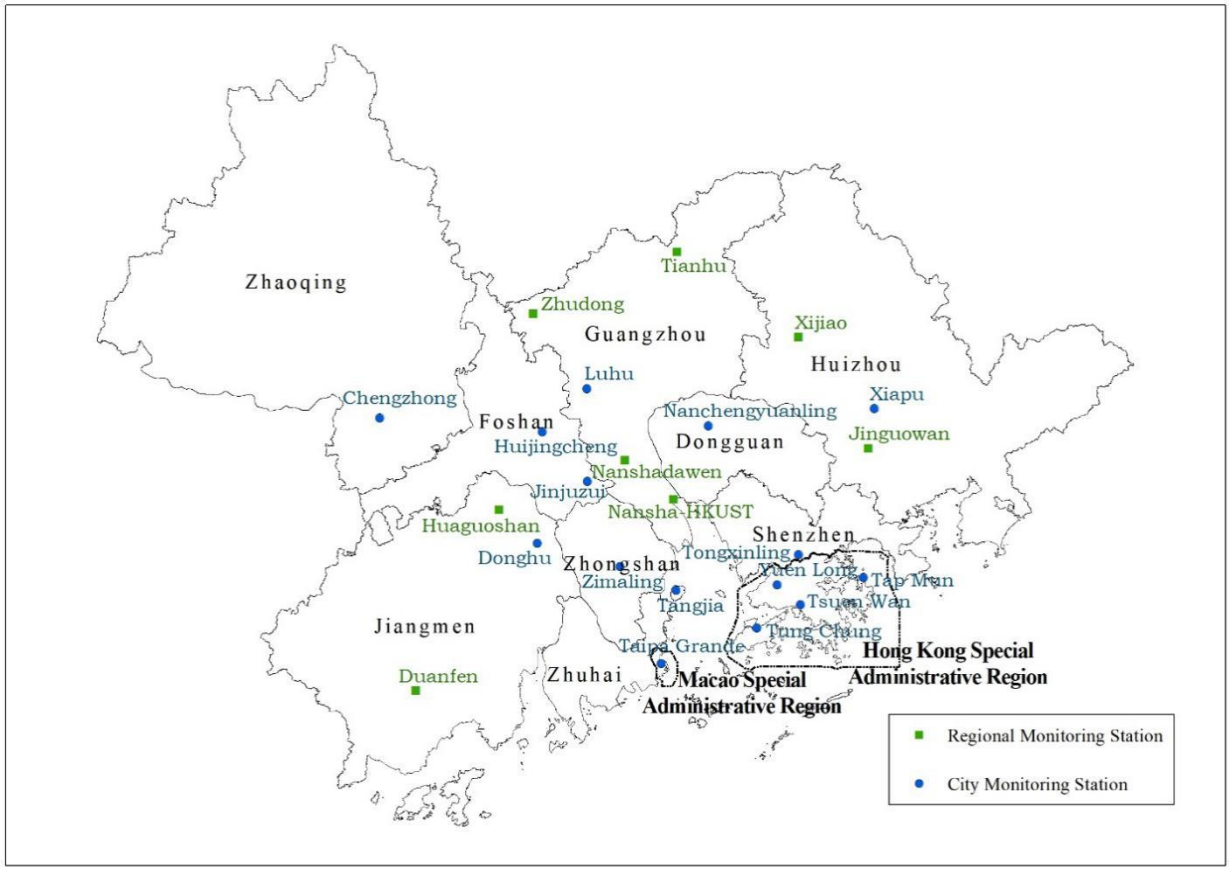

Figure 2.1：Spatial Distribution of Monitoring Stations in the Network[3]

[2] In 2014, when the monitoring network was expanded to cover Guangdong, Hong Kong and Macao, the unit's name was "Meteorological and Geophysical Bureau,Macao SAR". In December 2023, the unit's name was changed to "Meteorological and Geophysical Bureau, Macao SARG".

[3] The map was drawn with reference to the China National Standard Map "Map of the Pearl River Delta Region" (approval number: 粵S (2021) No. 169), and was re-submitted and approved for release. The approval number is GS粵 (2022) No. 378.

3. Operation of the Network

The overall operation of the Network was stable in the fourth quarter of 2025. The average data capture rate of hourly air pollutant monitoring data measured at all monitoring stations was 98.2% in the fourth quarter.

4. Statistical Results of Pollutant Concentrations

Tables 4.1a to 4.6b list the detailed statistical results of the six air pollutants (SO_2, NO_2, O_3, CO, PM_{10} and $PM_{2.5}$) from October to December 2025. Per the amended *GB 3095-2012: Ambient Air Quality Standards*, starting from 2019, the concentrations of gaseous pollutants are calculated at a reference temperature of 298.15K and a pressure of 101.325 kPa, while the concentrations of PM_{10} and $PM_{2.5}$ are measured at real-time temperature and atmospheric pressure during monitoring.

Table 4.1a：The monthly maxima and minima of hourly averages of SO_2 [4]

Monitoring Station	October 2025		November 2025		December 2025	
	Min	Max	Min	Max	Min	Max
Luhu (Guangzhou)	3	14	5	14	6	16
Nanshadawen (Guangzhou)	4	19	1	25	2	18
Nansha-HKUST (Guangzhou)	1	13	3	16	4	20
Tianhu (Guangzhou)	5	16	1	24	1	21
Zhudong (Guangzhou)	4	17	1	20	3	26
Tongxinling (Shenzhen)	4	25	6	18	4	11
Jinjuzui (Foshan)	3	17	4	13	3	18
Huijingcheng (Foshan)	7	25	7	24	8	31
Tangjia (Zhuhai)	4	10	5	12	5	15
Donghu (Jiangmen)	1	14	5	22	5	21
Duanfen (Jiangmen)	6	19	6	25	5	35
Huaguoshan (Jiangmen)	2	15	4	18	4	22
Chengzhong (Zhaoqing)	6	47	7	26	4	39
Xiapu (Huizhou)	3	31	4	23	3	29
Shixia (Huizhou)	3	21	4	31	5	17
Jinguowan (Huizhou)	4	12	4	11	4	10
Zimaling (Zhongshan)	5	12	4	13	4	15
Nanchengyuanling (Dongguan)	4	21	4	17	4	15
Tap Mun (Hong Kong)	0	20	0	6	0	8
Tsuen Wan (Hong Kong)	0	7	0	10	0	14
Yuen Long (Hong Kong)	1	11	1	6	0	10
Tung Chung (Hong Kong)	0	10	0	4	0	9
Taipa Grande (Macao)	2	6	3	8	3	22

[4] All pollutants, except for carbon monoxide, are measured in micrograms per cubic meter ($\mu g/m^3$). The unit for carbon monoxide concentration is milligrams per cubic meter (mg/m^3).

The above also applies to all the pollutant monitoring mentioned below.

Table 4.1b：The monthly maxima and minima of daily averages of SO_2

Monitoring Station	October 2025		November 2025		December 2025	
	Min	Max	Min	Max	Min	Max
Luhu (Guangzhou)	4	10	6	11	6	11
Nanshadawen (Guangzhou)	4	8	2	9	4	9
Nansha-HKUST (Guangzhou)	1	7	4	11	5	10
Tianhu (Guangzhou)	6	10	3	10	2	8
Zhudong (Guangzhou)	5	11	3	11	3	11
Tongxinling (Shenzhen)	6	12	6	12	6	10
Jinjuzui (Foshan)	4	7	4	9	4	10
Huijingcheng (Foshan)	8	13	8	15	9	17
Tangjia (Zhuhai)	4	8	6	9	6	8
Donghu (Jiangmen)	2	8	5	13	6	14
Duanfen (Jiangmen)	7	17	8	16	6	10
Huaguoshan (Jiangmen)	3	10	5	11	5	12
Chengzhong (Zhaoqing)	9	15	9	18	6	17
Xiapu (Huizhou)	4	11	5	11	6	11
Shixia (Huizhou)	5	11	6	12	7	11
Jinguowan (Huizhou)	4	7	5	8	5	7
Zimaling (Zhongshan)	6	8	5	9	5	9
Nanchengyuanling (Dongguan)	4	8	5	10	6	10
Tap Mun (Hong Kong)	0	4	0	3	0	4
Tsuen Wan (Hong Kong)	1	4	1	3	1	6
Yuen Long (Hong Kong)	1	5	2	4	1	5
Tung Chung (Hong Kong)	0	2	1	2	0	5
Taipa Grande (Macao)	3	5	3	7	3	8

Table 4.1c： The monthly averages of SO_2

Monitoring Station	October 2025	November 2025	December 2025
Luhu (Guangzhou)	6	8	9
Nanshadawen (Guangzhou)	6	6	6
Nansha-HKUST (Guangzhou)	4	6	6
Tianhu (Guangzhou)	7	7	4
Zhudong (Guangzhou)	7	7	7
Tongxinling (Shenzhen)	8	8	7
Jinjuzui (Foshan)	5	6	7
Huijingcheng (Foshan)	10	11	12
Tangjia (Zhuhai)	6	7	6
Donghu (Jiangmen)	4	9	10
Duanfen (Jiangmen)	9	13	8
Huaguoshan (Jiangmen)	6	8	8
Chengzhong (Zhaoqing)	11	13	11
Xiapu (Huizhou)	7	7	7
Shixia (Huizhou)	8	8	9
Jinguowan (Huizhou)	5	6	6
Zimaling (Zhongshan)	7	7	7
Nanchengyuanling (Dongguan)	6	7	8
Tap Mun (Hong Kong)	1	1	2
Tsuen Wan (Hong Kong)	2	2	3
Yuen Long (Hong Kong)	2	3	2
Tung Chung (Hong Kong)	1	1	2
Taipa Grande (Macao)	4	5	5

Table 4.2a: The monthly maxima and minima of hourly averages of NO_2

Monitoring Station	October 2025		November 2025		December 2025	
	Min	Max	Min	Max	Min	Max
Luhu (Guangzhou)	5	102	7	115	11	118
Nanshadawen (Guangzhou)	5	85	12	140	19	154
Nansha-HKUST (Guangzhou)	2	60	5	109	5	116
Tianhu (Guangzhou)	2	22	2	19	1	24
Zhudong (Guangzhou)	3	42	5	63	7	80
Tongxinling (Shenzhen)	2	57	4	96	5	99
Jinjuzui (Foshan)	2	83	7	133	10	157
Huijingcheng (Foshan)	6	84	12	134	16	141
Tangjia (Zhuhai)	5	46	10	99	16	107
Donghu (Jiangmen)	3	68	13	130	19	132
Duanfen (Jiangmen)	3	44	7	44	2	59
Huaguoshan (Jiangmen)	2	56	8	94	12	96
Chengzhong (Zhaoqing)	6	132	9	110	11	126
Xiapu (Huizhou)	1	46	3	77	5	81
Shixia (Huizhou)	4	59	5	44	2	58
Jinguowan (Huizhou)	2	26	3	31	5	78
Zimaling (Zhongshan)	4	50	8	85	13	104
Nanchengyuanling (Dongguan)	4	52	4	110	10	122
Tap Mun (Hong Kong)	0	29	0	35	1	53
Tsuen Wan (Hong Kong)	0	145	3	166	8	203
Yuen Long (Hong Kong)	4	127	6	149	8	173
Tung Chung (Hong Kong)	2	80	5	133	8	122
Taipa Grande (Macao)	2	56	7	92	12	120

Table 4.2b：The monthly maxima and minima of daily averages of NO_2

Monitoring Station	October 2025		November 2025		December 2025	
	Min	Max	Min	Max	Min	Max
Luhu (Guangzhou)	12	45	16	66	21	79
Nanshadawen (Guangzhou)	12	43	17	81	24	85
Nansha-HKUST (Guangzhou)	8	27	10	48	15	60
Tianhu (Guangzhou)	3	11	3	8	5	12
Zhudong (Guangzhou)	6	23	8	40	16	40
Tongxinling (Shenzhen)	4	26	8	52	12	51
Jinjuzui (Foshan)	9	40	12	62	18	86
Huijingcheng (Foshan)	12	41	17	87	25	84
Tangjia (Zhuhai)	8	30	17	49	25	55
Donghu (Jiangmen)	10	42	19	74	28	90
Duanfen (Jiangmen)	4	29	13	29	9	38
Huaguoshan (Jiangmen)	7	32	12	56	18	57
Chengzhong (Zhaoqing)	9	54	12	66	16	73
Xiapu (Huizhou)	3	16	7	31	9	40
Shixia (Huizhou)	6	26	6	22	8	28
Jinguowan (Huizhou)	4	14	5	20	9	24
Zimaling (Zhongshan)	6	33	16	53	22	67
Nanchengyuanling (Dongguan)	9	28	7	45	17	57
Tap Mun (Hong Kong)	2	13	4	18	7	19
Tsuen Wan (Hong Kong)	12	62	24	78	29	92
Yuen Long (Hong Kong)	11	46	20	72	25	81
Tung Chung (Hong Kong)	5	39	11	57	14	61
Taipa Grande (Macao)	7	34	20	65	19	71

Table 4.2c：The monthly averages of NO_2

Monitoring Station	October 2025	November 2025	December 2025
Luhu (Guangzhou)	26	30	48
Nanshadawen (Guangzhou)	30	38	58
Nansha-HKUST (Guangzhou)	19	23	37
Tianhu (Guangzhou)	6	5	9
Zhudong (Guangzhou)	15	17	25
Tongxinling (Shenzhen)	12	20	27
Jinjuzui (Foshan)	19	27	48
Huijingcheng (Foshan)	26	35	54
Tangjia (Zhuhai)	18	27	35
Donghu (Jiangmen)	21	32	52
Duanfen (Jiangmen)	14	19	20
Huaguoshan (Jiangmen)	18	27	37
Chengzhong (Zhaoqing)	26	31	49
Xiapu (Huizhou)	10	12	22
Shixia (Huizhou)	11	12	15
Jinguowan (Huizhou)	11	9	15
Zimaling (Zhongshan)	18	30	39
Nanchengyuanling (Dongguan)	18	19	36
Tap Mun (Hong Kong)	6	9	12
Tsuen Wan (Hong Kong)	29	39	50
Yuen Long (Hong Kong)	28	38	50
Tung Chung (Hong Kong)	23	29	34
Taipa Grande (Macao)	19	35	42

Table 4.3a: The monthly maxima and minima of hourly averages of O_3

Monitoring Station	October 2025		November 2025		December 2025	
	Min	Max	Min	Max	Min	Max
Luhu (Guangzhou)	1	176	1	164	1	182
Nanshadawen (Guangzhou)	2	223	1	193	1	188
Nansha-HKUST (Guangzhou)	1	217	1	229	1	227
Tianhu (Guangzhou)	15	151	17	140	11	140
Zhudong (Guangzhou)	3	237	3	185	2	164
Tongxinling (Shenzhen)	1	192	1	214	1	174
Jinjuzui (Foshan)	2	180	2	176	3	199
Huijingcheng (Foshan)	6	234	1	195	1	188
Tangjia (Zhuhai)	4	267	2	241	1	281
Donghu (Jiangmen)	1	274	1	209	1	224
Duanfen (Jiangmen)	1	160	6	190	1	234
Huaguoshan (Jiangmen)	4	264	3	254	3	196
Chengzhong (Zhaoqing)	3	222	1	159	1	181
Xiapu (Huizhou)	2	128	16	182	1	145
Shixia (Huizhou)	2	291	3	141	1	156
Jinguowan (Huizhou)	1	128	8	133	1	147
Zimaling (Zhongshan)	1	229	1	230	1	248
Nanchengyuanling (Dongguan)	3	195	2	193	2	205
Tap Mun (Hong Kong)	8	165	29	199	13	183
Tsuen Wan (Hong Kong)	2	128	7	193	3	119
Yuen Long (Hong Kong)	0	178	0	182	0	180
Tung Chung (Hong Kong)	19	161	12	204	9	134
Taipa Grande (Macao)	17	237	2	221	2	233

Table 4.3b：Daily maximum 8-hour averages of O_3 (the monthly maxima, minima and the 90th percentile)

Monitoring Station	October 2025			November 2025			December 2025		
	Min	Max	90th per	Min	Max	90th per	Min	Max	90th per
Luhu (Guangzhou)	43	147	135	34	127	109	34	148	126
Nanshadawen (Guangzhou)	43	189	181	34	171	116	41	149	144
Nansha-HKUST (Guangzhou)	38	173	152	35	186	143	40	188	171
Tianhu (Guangzhou)	50	138	120	58	127	118	65	134	120
Zhudong (Guangzhou)	49	196	174	42	147	122	25	132	126
Tongxinling (Shenzhen)	38	138	120	49	160	139	55	153	142
Jinjuzui (Foshan)	35	151	133	36	161	116	38	168	139
Huijingcheng (Foshan)	49	211	201	39	148	139	26	151	141
Tangjia (Zhuhai)	43	204	140	38	189	161	42	226	169
Donghu (Jiangmen)	39	192	146	33	192	134	27	195	164
Duanfen (Jiangmen)	29	136	121	36	161	140	34	182	138
Huaguoshan (Jiangmen)	47	224	176	36	229	141	27	169	152
Chengzhong (Zhaoqing)	48	186	161	57	142	115	36	150	142
Xiapu (Huizhou)	43	117	107	65	152	123	66	136	122
Shixia (Huizhou)	49	117	106	55	116	108	61	123	111
Jinguowan (Huizhou)	38	116	102	42	117	108	59	136	114
Zimaling (Zhongshan)	39	197	141	32	178	172	38	196	169
Nanchengyuanling (Dongguan)	48	174	159	48	178	140	56	169	159
Tap Mun (Hong Kong)	54	148	132	75	183	157	66	167	157
Tsuen Wan (Hong Kong)	22	106	92	43	127	104	24	110	86
Yuen Long (Hong Kong)	19	124	108	37	138	110	35	129	109
Tung Chung (Hong Kong)	41	123	109	39	127	99	18	96	78
Taipa Grande (Macao)	45	150	142	41	175	139	35	166	146

Table 4.3c：The monthly averages of O_3

Monitoring Station	October 2025	November 2025	December 2025
Luhu (Guangzhou)	56	52	48
Nanshadawen (Guangzhou)	63	54	52
Nansha-HKUST (Guangzhou)	62	66	70
Tianhu (Guangzhou)	75	84	86
Zhudong (Guangzhou)	65	60	53
Tongxinling (Shenzhen)	62	72	70
Jinjuzui (Foshan)	58	58	59
Huijingcheng (Foshan)	78	62	54
Tangjia (Zhuhai)	64	74	77
Donghu (Jiangmen)	65	61	62
Duanfen (Jiangmen)	49	64	63
Huaguoshan (Jiangmen)	72	63	60
Chengzhong (Zhaoqing)	67	57	53
Xiapu (Huizhou)	62	77	66
Shixia (Huizhou)	59	64	57
Jinguowan (Huizhou)	53	62	62
Zimaling (Zhongshan)	62	69	70
Nanchengyuanling (Dongguan)	71	73	73
Tap Mun (Hong Kong)	76	94	93
Tsuen Wan (Hong Kong)	47	60	52
Yuen Long (Hong Kong)	47	58	51
Tung Chung (Hong Kong)	58	53	44
Taipa Grande (Macao)	68	74	77

Table 4.4a：The monthly maxima and minima of hourly averages of CO

Monitoring Station	October 2025		November 2025		December 2025	
	Min	Max	Min	Max	Min	Max
Luhu (Guangzhou)	0.3	2.0	0.3	1.0	0.1	1.7
Nanshadawen (Guangzhou)	0.1	1.1	0.4	1.1	0.6	1.4
Nansha-HKUST (Guangzhou)	0.1	0.9	0.3	0.9	0.3	1.4
Tianhu (Guangzhou)	0.0	1.2	0.4	1.0	0.3	1.2
Zhudong (Guangzhou)	0.5	1.0	0.4	1.0	0.5	1.4
Tongxinling (Shenzhen)	0.4	0.9	0.3	1.3	0.3	1.3
Jinjuzui (Foshan)	0.2	0.9	0.3	1.0	0.3	1.2
Huijingcheng (Foshan)	0.4	1.2	0.4	1.5	0.3	1.9
Tangjia (Zhuhai)	0.3	0.8	0.2	1.0	0.1	1.0
Donghu (Jiangmen)	0.2	0.9	0.2	1.5	0.2	1.5
Duanfen (Jiangmen)	0.2	0.8	0.2	0.9	0.1	1.1
Huaguoshan (Jiangmen)	0.3	1.2	0.4	1.1	0.4	1.2
Chengzhong (Zhaoqing)	0.3	0.9	0.3	1.1	0.5	1.2
Xiapu (Huizhou)	0.3	1.0	0.2	1.3	0.5	1.4
Shixia (Huizhou)	0.2	0.9	0.4	1.1	0.4	1.3
Jinguowan (Huizhou)	0.2	0.7	0.3	2.5	0.3	1.1
Zimaling (Zhongshan)	0.3	0.8	0.2	0.9	0.3	1.2
Nanchengyuanling (Dongguan)	0.3	0.7	0.1	1.1	0.3	1.5
Tap Mun (Hong Kong)	0.2	0.7	0.2	0.8	0.1	0.7
Tsuen Wan (Hong Kong)	0.4	0.9	0.1	0.9	0.2	1.0
Yuen Long (Hong Kong)	0.7	1.1	0.5	1.3	0.7	1.9
Tung Chung (Hong Kong)	0.2	1.0	0.5	1.1	0.5	1.2
Taipa Grande (Macao)	0.3	1.4	0.3	0.9	0.4	0.9

Table 4.4b：Daily averages of CO (the monthly maxima, minima and the 95th percentile)

Monitoring Station	October 2025			November 2025			December 2025		
	Min	Max	95th per	Min	Max	95th per	Min	Max	95th per
Luhu (Guangzhou)	0.3	0.7	0.6	0.3	0.6	0.6	0.3	1.3	1.0
Nanshadawen (Guangzhou)	0.4	0.8	0.7	0.5	0.8	0.8	0.7	1.1	1.1
Nansha-HKUST (Guangzhou)	0.3	0.8	0.8	0.3	0.7	0.6	0.4	0.9	0.9
Tianhu (Guangzhou)	0.3	0.9	0.8	0.4	0.9	0.7	0.5	1.0	1.0
Zhudong (Guangzhou)	0.6	1.0	0.9	0.5	0.8	0.7	0.7	1.1	1.0
Tongxinling (Shenzhen)	0.5	0.8	0.8	0.4	0.8	0.8	0.5	0.8	0.8
Jinjuzui (Foshan)	0.3	0.8	0.8	0.4	0.7	0.7	0.5	0.9	0.9
Huijingcheng (Foshan)	0.5	0.9	0.9	0.5	0.9	0.9	0.5	1.1	1.1
Tangjia (Zhuhai)	0.3	0.6	0.6	0.3	0.8	0.8	0.2	0.8	0.7
Donghu (Jiangmen)	0.2	0.8	0.6	0.3	0.7	0.6	0.3	0.9	0.9
Duanfen (Jiangmen)	0.3	0.7	0.6	0.3	0.7	0.6	0.3	0.7	0.7
Huaguoshan (Jiangmen)	0.4	0.9	0.8	0.4	0.8	0.8	0.6	0.9	0.9
Chengzhong (Zhaoqing)	0.4	0.7	0.7	0.4	0.8	0.7	0.6	1.0	0.9
Xiapu (Huizhou)	0.4	0.8	0.8	0.3	0.9	0.9	0.5	1.0	0.9
Shixia (Huizhou)	0.3	0.7	0.6	0.4	0.8	0.7	0.6	1.0	0.9
Jinguowan (Huizhou)	0.3	0.7	0.6	0.5	0.9	0.8	0.4	0.8	0.7
Zimaling (Zhongshan)	0.3	0.7	0.6	0.2	0.7	0.6	0.5	0.8	0.8
Nanchengyuanling (Dongguan)	0.3	0.6	0.6	0.2	0.8	0.7	0.4	0.9	0.9
Tap Mun (Hong Kong)	0.2	0.6	0.6	0.3	0.7	0.7	0.2	0.5	0.5
Tsuen Wan (Hong Kong)	0.5	0.7	0.7	0.2	0.8	0. 7	0.4	0.7	0.6
Yuen Long (Hong Kong)	0.7	1.0	1.0	0.6	1.0	1.0	0.8	1.3	1.2
Tung Chung (Hong Kong)	0.3	0.8	0.8	0.6	0.9	0.9	0.6	1.0	0.9
Taipa Grande (Macao)	0.4	0.7	0.7	0.4	0.8	0.8	0.5	0.8	0.7

Table 4.4c：The monthly averages of CO

Monitoring Station	October 2025	November 2025	December 2025
Luhu (Guangzhou)	0.5	0.5	0.7
Nanshadawen (Guangzhou)	0.6	0.6	0.9
Nansha-HKUST (Guangzhou)	0.5	0.5	0.7
Tianhu (Guangzhou)	0.6	0.6	0.7
Zhudong (Guangzhou)	0.8	0.6	0.8
Tongxinling (Shenzhen)	0.6	0.6	0.7
Jinjuzui (Foshan)	0.5	0.6	0.7
Huijingcheng (Foshan)	0.7	0.7	0.8
Tangjia (Zhuhai)	0.5	0.5	0.5
Donghu (Jiangmen)	0.5	0.5	0.6
Duanfen (Jiangmen)	0.5	0.5	0.5
Huaguoshan (Jiangmen)	0.6	0.6	0.8
Chengzhong (Zhaoqing)	0.6	0.6	0.8
Xiapu (Huizhou)	0.6	0.6	0.8
Shixia (Huizhou)	0.5	0.6	0.8
Jinguowan (Huizhou)	0.4	0.6	0.6
Zimaling (Zhongshan)	0.5	0.5	0.7
Nanchengyuanling (Dongguan)	0.5	0.5	0.7
Tap Mun (Hong Kong)	0.4	0.5	0.4
Tsuen Wan (Hong Kong)	0.6	0.5	0.5
Yuen Long (Hong Kong)	0.9	0. 9	1.1
Tung Chung (Hong Kong)	0.5	0.7	0.8
Taipa Grande (Macao)	0.5	0.6	0.6

Table 4.5a：The monthly maxima and minima of daily averages of PM_{10}

Monitoring Station	October 2025		November 2025		December 2025	
	Min	Max	Min	Max	Min	Max
Luhu (Guangzhou)	11	54	10	66	14	70
Nanshadawen (Guangzhou)	9	60	14	96	18	101
Nansha-HKUST (Guangzhou)	16	64	23	86	28	99
Tianhu (Guangzhou)	4	39	5	37	7	50
Zhudong (Guangzhou)	11	57	9	82	12	83
Tongxinling (Shenzhen)	10	53	16	73	22	70
Jinjuzui (Foshan)	12	56	13	85	25	134
Huijingcheng (Foshan)	13	60	12	104	22	122
Tangjia (Zhuhai)	4	58	17	67	25	86
Donghu (Jiangmen)	12	65	16	100	18	126
Duanfen (Jiangmen)	12	70	17	100	30	103
Huaguoshan (Jiangmen)	17	68	17	93	21	109
Chengzhong (Zhaoqing)	8	60	7	78	9	103
Xiapu (Huizhou)	7	60	12	82	20	72
Shixia (Huizhou)	4	49	9	61	20	69
Jinguowan (Huizhou)	9	54	10	70	15	68
Zimaling (Zhongshan)	11	58	18	76	24	86
Nanchengyuanling (Dongguan)	6	52	11	76	14	85
Tap Mun (Hong Kong)	4	41	7	51	13	59
Tsuen Wan (Hong Kong)	5	38	9	46	11	67
Yuen Long (Hong Kong)	9	46	16	59	22	75
Tung Chung (Hong Kong)	5	45	16	55	13	96
Taipa Grande (Macao)	5	52	20	78	27	82

Table 4.5b：The monthly averages of PM_{10}

Monitoring Station	October 2025	November 2025	December 2025
Luhu (Guangzhou)	32	35	53
Nanshadawen (Guangzhou)	34	46	69
Nansha-HKUST (Guangzhou)	37	49	69
Tianhu (Guangzhou)	20	18	24
Zhudong (Guangzhou)	34	35	54
Tongxinling (Shenzhen)	24	38	45
Jinjuzui (Foshan)	32	44	69
Huijingcheng (Foshan)	35	45	77
Tangjia (Zhuhai)	24	39	52
Donghu (Jiangmen)	35	46	73
Duanfen (Jiangmen)	30	46	57
Huaguoshan (Jiangmen)	41	49	72
Chengzhong (Zhaoqing)	32	32	59
Xiapu (Huizhou)	32	41	52
Shixia (Huizhou)	27	31	45
Jinguowan (Huizhou)	30	36	40
Zimaling (Zhongshan)	29	44	56
Nanchengyuanling (Dongguan)	31	38	57
Tap Mun (Hong Kong)	17	27	31
Tsuen Wan (Hong Kong)	16	25	32
Yuen Long (Hong Kong)	22	34	44
Tung Chung (Hong Kong)	19	32	39
Taipa Grande (Macao)	23	45	52

Table 4.6a：The monthly maxima and minima of daily averages of $PM_{2.5}$

Monitoring Station	October 2025		November 2025		December 2025	
	Min	Max	Min	Max	Min	Max
Luhu (Guangzhou)	4	42	8	35	9	54
Nanshadawen (Guangzhou)	3	44	10	47	9	64
Nansha-HKUST (Guangzhou)	4	42	8	36	11	47
Tianhu (Guangzhou)	5	34	5	23	5	33
Zhudong (Guangzhou)	6	42	6	38	7	60
Tongxinling (Shenzhen)	2	39	5	41	9	45
Jinjuzui (Foshan)	5	35	9	46	12	60
Huijingcheng (Foshan)	4	39	6	49	8	78
Tangjia (Zhuhai)	1	48	6	48	8	60
Donghu (Jiangmen)	6	44	9	47	13	75
Duanfen (Jiangmen)	4	41	10	51	12	58
Huaguoshan (Jiangmen)	8	47	11	50	12	72
Chengzhong (Zhaoqing)	2	42	3	42	5	71
Xiapu (Huizhou)	2	43	6	38	12	51
Shixia (Huizhou)	3	37	6	30	12	46
Jinguowan (Huizhou)	2	36	4	41	12	45
Zimaling (Zhongshan)	3	47	8	42	11	61
Nanchengyuanling (Dongguan)	2	40	6	40	8	54
Tap Mun (Hong Kong)	3	35	7	26	10	41
Tsuen Wan (Hong Kong)	4	31	7	32	9	56
Yuen Long (Hong Kong)	5	36	9	38	13	60
Tung Chung (Hong Kong)	4	37	9	33	9	79
Taipa Grande (Macao)	2	41	9	42	16	60

Table 4.6b：The monthly averages of $PM_{2.5}$

Monitoring Station	October 2025	November 2025	December 2025
Luhu (Guangzhou)	20	21	36
Nanshadawen (Guangzhou)	21	26	43
Nansha-HKUST (Guangzhou)	16	21	31
Tianhu (Guangzhou)	13	13	20
Zhudong (Guangzhou)	24	22	38
Tongxinling (Shenzhen)	14	20	27
Jinjuzui (Foshan)	17	21	38
Huijingcheng (Foshan)	19	21	45
Tangjia (Zhuhai)	17	24	36
Donghu (Jiangmen)	21	26	44
Duanfen (Jiangmen)	17	24	34
Huaguoshan (Jiangmen)	25	28	45
Chengzhong (Zhaoqing)	21	19	39
Xiapu (Huizhou)	18	21	32
Shixia (Huizhou)	18	19	30
Jinguowan (Huizhou)	14	21	28
Zimaling (Zhongshan)	19	25	37
Nanchengyuanling (Dongguan)	19	21	35
Tap Mun (Hong Kong)	12	17	22
Tsuen Wan (Hong Kong)	12	16	23
Yuen Long (Hong Kong)	15	20	30
Tung Chung (Hong Kong)	14	20	27
Taipa Grande (Macao)	14	22	32

Annex A：Site Information of Monitoring Stations

Monitoring Stations	Address	Area Type	Sampling Height (Above) P.D.)	Above Ground	Date Commenced Operation
Luhu (Guangzhou)	Jufong Garden of Luhu Park,Yuexiu District (Big yard, No. 11 Luhu Park)	City	30m	9m	Jan 1993
Nanshadawen[5] (Guangzhou)	Shinan Road, Dongchong Town, Nansha District	City	23m	10m	Dec 2011
Nansha-HKUST[6] (Guangzhou)	HKUST Fok Ying Tung Research Institute, Nansha District	Mixed educational/ commercial and residential/industrial	54m	28m	Oct 2004
Tianhu (Guangzhou)	Tianhu Park, Conghua District	Background : rural	251m	13m	Oct 2004
Zhudong (Guangzhou)	Zhudong Village Committee, Chini Town, Huadu District	Rural	19m	10m	Dec 2011
Tongxinling[7] (Shenzhen)	Shennan Zhong Road, Futian District	City	38m	12m	Sep 1997
Jinjuzui (Foshan)	Foshan City Communist Party School, Jinjuzui, Shunde District	Tourist and cultural /educational	27m	17m	Oct 1999
Huijingcheng (Foshan)	No. 127, Fenjiang Nan Road, Chancheng District	Urban: mixed residential/commercial/ industrial	24m	14m	Feb 2000
Tangjia (Zhuhai)	Qiao Island Mangrove Monitoring Station, Tangjia Town,Xiangzhou District	Touristl/ eco-protected	13m	13m	Jan 2010
Donghu (Jiangmen)	Donghu Park,Pengjiang District	City	17.5m	5m	Nov 2001
Duanfen (Jiangmen)	Duanfen Middle School, Taishan	Rural	15m	12m	Dec 2011
Huaguoshan (Jiangmen)	Huaguoshan, Taoyuan, Heshan	Rural	25m	15m	Feb 2012
Chengzhong (Zhaoqing)	No. 63, Zhengdong Road, Duanzhou District	Urban: mixed residential/commercial	38m	16m	Jun 2001

[5] Modiesha (Guangzhou) station was relocated to a monitoring station located in.Guangdong Ocean and Fishery High-Tech Park, owing to insufficient space after the extensive renovation work at station, whereas Nanshadawen (Guangzhou) station joined the network in the 1st quarter of 2021.

[6] Wanqingsha (Guangzhou) station was renamed as Nansha-HKUST (Guangzhou) station in the 1st quarter of 2019.

[7] Liyuan (Shenzhen) station was renamed as Tongxinling (Shenzhen) station in the 1st quarter of 2019.

Monitoring Stations	Address	Area Type	Sampling Height (Above) P.D.)	Above Ground	Date Commenced Operation
Xiapu (Huizhou)	No. 4 Xiabuhengjiang Road No. 3, Huicheng District	Urban: commercial	49m	20m	Dec 1999
Shixia[8] (Huizhou)	Community Service Center, Shixiatun Village, Changning Town，Boluo County	Rural	44m	10m	Dec 2011
Jinguowan (Huizhou)	Jinguowan Ecological Farm,Yonghu Town, Huiyang District	Residential	77m	8m	Oct 2004
Zimaling (Zhongshan)	Zimaling Park,Bo'ai Road No.6, East District	Mixed residential/ commercial	45 m	7m	Aug 2002
Nancheng-yuanling[9] (Dongguan)	Dongguan Administration Center, Nancheng Street, Urban District	Mixed residential/ commercial/industrial	40 m	19m	May 1998
Tap Mun (Hong Kong)	Tap Mun Police Station, Tai Po District, New Territories	Background: rural	26m	11m	Apr 1998
Tsuen Wan (Hong Kong)	60 Tai Ho Road, Tsuen Wan, Tsuen Wan District, New Territories	Urban: mixed residential/commercial/ industrial	21m	17m	Aug 1988
Yuen Long (Hong Kong)	Yuen Long District Office, 269 Castle Peak Road, Yuen Long District, New Territories	New Town: residential	31m	25m	Jul 1995
Tung Chung (Hong Kong)	6 Fu Tung Street, Tung Chung, Islands District, NewTerritories	New Town: residential	34.5m	27.5m	Apr 1999
Taipa Grande (Macao)	Rampa do Observatorio, Taipa Grande, Taipa Island	Rural	113.1m	3m (gaseous pollutants)[10] / 5m (particulate matter)	Mar 1999

[8] Xijiao (Huizhou) station was relocated to a monitoring station located in Shixiatun Village, Changning Town, Boluo County, Huizhou City in the 2nd quarter of 2023, and changed its name to " Shixia (Huizhou)"

[9] Nancheng-yuanling (Dongguan) station was relocated to Dongguan administration center in May 2021. The distance between the old and new sites is about 600 metres.

[10] Gaseous pollutants include Sulphur dioxide (SO_2), Nitrogen dioxide (NO_2), Ozone (O_3) and Carbon monoxide (CO).

Annex B：Measurement Methods of Air Pollutant Concentration

Pollutants	**Measuring Principles**
Sulphur dioxide (SO_2)	Ultraviolet fluorescence method/ Differential Optical Absorption Spectroscopy
Nitrogen dioxide (NO_2)	Chemiluminescence method/ Differential Optical Absorption Spectroscopy
Ozone (O_3)	Ultraviolet photometric method / Differential Optical Absorption Spectroscopy
Respirable suspended particulates (PM_{10})	Oscillating microbalance (TEOM) / Beta ray method
Fine suspended particulates ($PM_{2.5}$)	Oscillating microbalance (TEOM) / Beta ray method / Beta ray method + Hybrid nephelometric
Carbon monoxide (CO)	Gas filter correlation infrared absorption method / Non-dispersive infrared absorption method