

2022 年度 BOE（京东方）半导体显示器件及物联网创新业务 负责任矿产调查报告

1 概述

作为全球半导体显示产业龙头企业及领先的物联网创新企业，京东方科技集团股份有限公司（以下简称京东方、BOE）带领中国显示产业实现了从无到有、从有到大、从大到强，其超高清、柔性、微显示等解决方案已广泛应用于国内外知名品牌，亦在持续通过人工智能、大数据、云计算等技术支撑，聚焦软硬融合的产品与服务，提供智慧园区、智慧金融、视觉艺术、智慧出行、公共服务等物联网细分领域整体解决方案。伴随“屏之物联”新篇章的开启，京东方的企业社会责任与当下所倡导的绿色、低碳、可持续发展等理念联系得更加紧密。关于京东方的完整概述，包括我们的产品、文化和管理，请登录 www.boe.com 查阅更多信息。

京东方在自身发展的同时，积极关注全球环境问题，承诺履行社会责任、尊重及保护人权。我们以尊重人权和环境的方式，与供应商、行业同行和其他利益相关方合作，确保我们的产品不包含来自受冲突影响和高风险区域的矿产。

京东方支持负责任的矿产生产和全球采购，多年来持续参与如“负责任矿产倡议”（RMI：Responsible Minerals Initiative）等多方利益相关者倡议。RMI 提供了“冲突矿产报告模板”（CMRT：Conflict Minerals Reporting Template）、“钴报告模板”（CRT：Cobalt Reporting Template）等工具，为全球范围内开展相关工作提供支持。京东方使用 RMI 工具（CMRT、CRT 等）对供应链进行 3TG 尽职调查，包括跟进供应

商 CMRT 响应率（要求 100%）、确认供应商冶炼厂认证等。推动我们的矿产采购行动朝着最初的目标迈进，助力京东方实现企业社会责任。

京东方为供应商提供明确的不使用受冲突影响和高风险区域矿产指导方针，通过培训提升其对受冲突影响和高风险区域矿产的认知，并审查其提交的信息，对整个供应链矿产的使用进行定期核查。除对不使用受冲突影响和高风险区域矿产的承诺外，我们还尽最大努力管理供应链，监控任何引起侵犯人权或破坏环境的矿产开采。京东方内部设有一整套完善的负责任矿产管理体系，通过 CMRT 报告，可以看出我们在这一领域的努力。

2 涉及范围

本次调查涉及产品范围包括京东方及其关联企业生产和销售的显示器件产品（LCD、OLED），智慧终端产品（TV，MNT，NB，TPC，IoT、低功耗终端、3D 显示）。

3 定义与特征

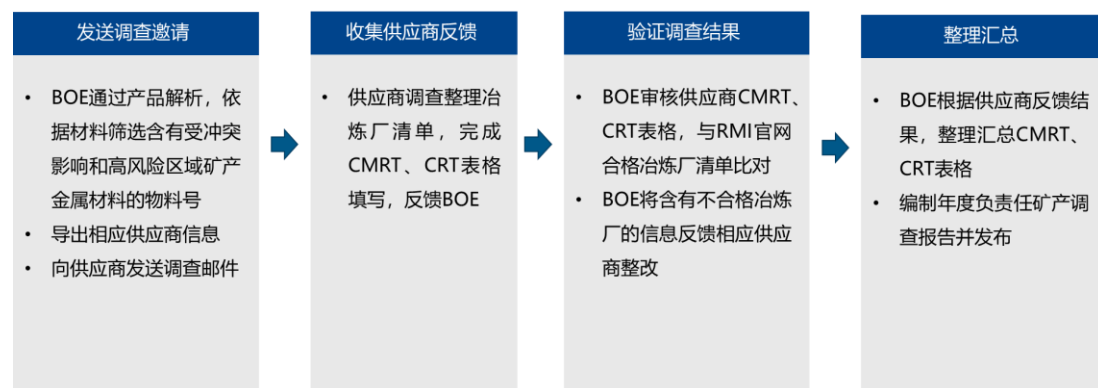
受冲突影响和高风险区域：目前“受冲突影响和高风险区域”并没有一个确定的定义，经济合作与发展组织提供了此类区域的一些特征：经识别存在武装冲突、大面积暴力活动风险的地区，包括犯罪网络引发的暴行，或其他使人民广泛遭受严重伤害的风险的地区。武装冲突的形式多种多样，如国际冲突或非国际冲突，可能涉及两个或两个以上国家，可能由解放战争、叛乱、内战构成。高风险地区指的是那些爆发冲突、发生大范围或严重侵权行为风险很高的地区。这类地区的特点往往是政局不稳，或存在政治压迫、制度缺陷、不安全因素、民用基础设施崩溃、广泛暴力活动、违反国际国内法律等。

3TG: Tin (锡), Tantalum (钽), Tungsten (钨)、Gold (金)

CMRT: Conflict Minerals Reporting Template (冲突矿产报告模板)

CRT: Cobalt Reporting Template (钴报告模板)

4 负责任矿产调查流程



5 负责任矿产调查结论

本次负责任矿产调查历时 3 个月, 供应商 CMRT、CRT 报告回复率 100%。经调查, 半导体显示及物联网创新业务相关产品所用 3TG 来自 169 家冶炼厂(金: 83、钽: 26 家、锡: 34 家、钨: 26 家), 截止 2022 年 12 月 31 日, 以上 169 家冶炼厂全部符合 RMI 合格冶炼厂要求。另外, 调查显示, 钴来自 38 家冶炼厂, 属于合格冶炼厂范围。据此, 半导体显示及物联网创新业务产品所使用矿产均符合 RMI 及客户要求。

附件 1：京东方半导体显示及物联网创新业务负责任矿产冶炼厂清单（2022 年）

Metal	Smelter	Location
Tin	PT Refined Bangka Tin	INDONESIA
Tin	Yunnan Chengfeng Non-ferrous Metals Co., Ltd.	CHINA
Gold	Shandong Zhaojin Gold & Silver Refinery Co., Ltd.	CHINA
Tin	Malaysia Smelting Corporation (MSC)	MALAYSIA
Tin	PT Timah Tbk Mentok	INDONESIA
Gold	Heraeus Germany GmbH Co. KG	GERMANY
Tin	Jiangxi New Nanshan Technology Ltd.	CHINA
Gold	Sumitomo Metal Mining Co., Ltd.	JAPAN
Gold	Tanaka Kikinzoku Kogyo K.K.	JAPAN
Gold	JX Nippon Mining & Metals Co., Ltd.	JAPAN
Tantalum	Global Advanced Metals Aizu	JAPAN
Tin	Thaisarco	THAILAND
Tungsten	Kennametal Huntsville	UNITED STATES
Gold	Advanced Chemical Company	UNITED STATES
Gold	Aida Chemical Industries Co., Ltd.	JAPAN
Gold	Almalyk Mining and Metallurgical Complex (AMMC)	UZBEKISTAN
Gold	Argor-Heraeus S.A.	SWITZERLAND
Gold	Asaka Riken Co., Ltd.	JAPAN
Gold	Bangko Sentral ng Pilipinas (Central Bank of the Philippines)	PHILIPPINES
Gold	C. Hafner GmbH + Co. KG	GERMANY
Tantalum	Changsha South Tantalum Niobium Co., Ltd.	CHINA
Tungsten	Guangdong Xianglu Tungsten Co., Ltd.	CHINA
Tin	Chenzhou Yunxiang Mining and Metallurgy Co., Ltd.	CHINA
Tin	Alpha	UNITED STATES
Tantalum	F&X Electro-Materials Ltd.	CHINA
Tantalum	XIMEI RESOURCES (GUANGDONG) LIMITED	CHINA
Gold	Jiangxi Copper Co., Ltd.	CHINA
Tantalum	JiuJiang JinXin Nonferrous Metals Co., Ltd.	CHINA
Tantalum	Jiujiang Tanbre Co., Ltd.	CHINA
Tantalum	LSM Brasil S.A.	BRAZIL
Tin	Guangdong Hanhe Non-Ferrous Metal Co., Ltd.	CHINA
Gold	WIELAND Edelmetalle GmbH	GERMANY
Gold	Korea Zinc Co., Ltd.	REPUBLIC OF KOREA
Gold	MMTC-PAMP India Pvt., Ltd.	INDIA
Gold	Geib Refining Corporation	UNITED STATES
Gold	Torecom	REPUBLIC OF KOREA
Gold	Sichuan Tianze Precious Metals Co., Ltd.	CHINA

Metal	Smelter	Location
Gold	Ohura Precious Metal Industry Co., Ltd.	JAPAN
Tin	O.M. Manufacturing (Thailand) Co., Ltd.	THAILAND
Tin	China Tin Group Co., Ltd.	CHINA
Tin	Gejiu Non-Ferrous Metal Processing Co., Ltd.	CHINA
Tin	Mitsubishi Materials Corporation	JAPAN
Gold	Yokohama Metal Co., Ltd.	JAPAN
Tin	Rui Da Hung	TAIWAN PROVINCE OF CHINA
Gold	Inner Mongolia Qiankun Gold and Silver Refinery Share Co., Ltd.	CHINA
Gold	Metalor Technologies (Suzhou) Ltd.	CHINA
Tantalum	Taki Chemicals	JAPAN
Gold	Allgemeine Gold- und Silberscheideanstalt A.G.	GERMANY
Gold	AngloGold Ashanti Corrego do Sitio Mineracao	BRAZIL
Gold	Asahi Pretec Corp.	JAPAN
Gold	Aurubis AG	GERMANY
Gold	Boliden AB	SWEDEN
Gold	CCR Refinery – Glencore Canada Corporation	CANADA
Gold	Chimet S.p.A.	ITALY
Gold	Dowa	JAPAN
Gold	Heimerle + Meule GmbH	GERMANY
Gold	Heraeus Metals Hong Kong Ltd.	CHINA
Gold	Ishifuku Metal Industry Co., Ltd.	JAPAN
Gold	Istanbul Gold Refinery	TURKEY
Gold	Asahi Refining USA Inc.	UNITED STATES
Gold	Asahi Refining Canada Ltd.	CANADA
Gold	Kennecott Utah Copper LLC	UNITED STATES
Gold	Kojima Chemicals Co., Ltd.	JAPAN
Gold	LS-NIKKO Copper Inc.	REPUBLIC OF KOREA
Gold	Materion	UNITED STATES
Gold	Matsuda Sangyo Co., Ltd.	JAPAN
Gold	Metalor Technologies (Hong Kong) Ltd.	CHINA
Gold	Metalor Technologies S.A.	SWITZERLAND
Gold	Metalor USA Refining Corporation	UNITED STATES
Gold	Metalurgica Met-Mex Penoles S.A. De C.V.	MEXICO
Gold	Mitsubishi Materials Corporation	JAPAN
Gold	Mitsui Mining and Smelting Co., Ltd.	JAPAN
Gold	Nihon Material Co., Ltd.	JAPAN
Gold	PAMP S.A.	SWITZERLAND
Gold	Royal Canadian Mint	CANADA
Gold	Solar Applied Materials Technology Corp.	TAIWAN PROVINCE OF CHINA
Gold	Tokuriki Honten Co., Ltd.	JAPAN

Metal	Smelter	Location
Gold	Umicore S.A. Business Unit Precious Metals Refining	BELGIUM
Gold	United Precious Metal Refining, Inc.	UNITED STATES
Gold	Western Australian Mint (T/a The Perth Mint)	AUSTRALIA
Tungsten	Chongyi Zhangyuan Tungsten Co., Ltd.	CHINA
Tungsten	Global Tungsten & Powders Corp.	UNITED STATES
Tungsten	Hunan Chunchang Nonferrous Metals Co., Ltd.	CHINA
Tungsten	Japan New Metals Co., Ltd.	JAPAN
Tungsten	Ganzhou Huaxing Tungsten Products Co., Ltd.	CHINA
Tungsten	Kennametal Fallon	UNITED STATES
Tungsten	Wolfram Bergbau und Hutten AG	AUSTRIA
Tungsten	Xiamen Tungsten Co., Ltd.	CHINA
Tungsten	Xiamen Tungsten (H.C.) Co., Ltd.	CHINA
Tungsten	Ganzhou Seadragon W & Mo Co., Ltd.	CHINA
Tungsten	Chenzhou Diamond Tungsten Products Co., Ltd.	CHINA
Gold	Metalor Technologies (Singapore) Pte., Ltd.	SINGAPORE
Tin	Minsur	PERU
Tin	PT Timah Tbk Kundur	INDONESIA
Tantalum	Metallurgical Products India Pvt., Ltd.	INDIA
Tantalum	Ningxia Orient Tantalum Industry Co., Ltd.	CHINA
Tantalum	Ulba Metallurgical Plant JSC	KAZAKHSTAN
Tantalum	Global Advanced Metals Boyertown	UNITED STATES
Tantalum	Hengyang King Xing Lifeng New Materials Co., Ltd.	CHINA
Tantalum	D Block Metals, LLC	UNITED STATES
Tantalum	H.C. Starck Inc.	UNITED STATES
Tungsten	Jiangwu H.C. Starck Tungsten Products Co., Ltd.	CHINA
Tin	Chifeng Dajingzi Tin Industry Co., Ltd.	CHINA
Gold	Chugai Mining	JAPAN
Gold	Eco-System Recycling Co., Ltd. East Plant	JAPAN
Gold	LT Metal Ltd.	REPUBLIC OF KOREA
Tungsten	Malipo Haiyu Tungsten Co., Ltd.	CHINA
Gold	Japan Mint	JAPAN
Gold	Kazzinc	KAZAKHSTAN
Gold	Nadir Metal Rafineri San. Ve Tic. A.S.	TURKEY
Gold	PT Aneka Tambang (Persero) Tbk	INDONESIA
Gold	PX Precinox S.A.	SWITZERLAND
Gold	Rand Refinery (Pty) Ltd.	SOUTH AFRICA
Gold	SEMPA Joyeria Plateria S.A.	SPAIN
Tungsten	Philippine Chuangxin Industrial Co., Inc.	PHILIPPINES
Gold	Valcambi S.A.	SWITZERLAND
Gold	KGHM Polska Miedz Spolka Akcyjna	POLAND

Metal	Smelter	Location
Gold	Al Etihad Gold Refinery DMCC	UNITED ARAB EMIRATES
Gold	Emirates Gold DMCC	UNITED ARAB EMIRATES
Gold	REMONDIS PMR B.V.	NETHERLANDS
Gold	L'Orfebre S.A.	ANDORRA
Gold	Italpreziosi	ITALY
Gold	Bangalore Refinery	INDIA
Gold	SungEel HiMetal Co., Ltd.	REPUBLIC OF KOREA
Gold	Planta Recuperadora de Metales SpA	CHILE
Tantalum	Telex Metals	UNITED STATES
Gold	SAFINA A.S.	CZECHIA
Gold	TOO Tau-Ken-Alty	KAZAKHSTAN
Tungsten	Xinfeng Huarui Tungsten & Molybdenum New Material Co., Ltd.	CHINA
Tin	Dowa	JAPAN
Tin	Metallo Spain S.L.U.	SPAIN
Tin	Fenix Metals	POLAND
Tin	Metallic Resources, Inc.	UNITED STATES
Tin	Metallo Belgium N.V.	BELGIUM
Tin	O.M. Manufacturing Philippines, Inc.	PHILIPPINES
Tin	Operaciones Metalurgicas S.A.	PLURINATIONAL STATE OF BOLIVIA
Tin	Mineracao Taboca S.A.	BRAZIL
Tin	PT ATD Makmur Mandiri Jaya	INDONESIA
Tin	PT Mitra Stania Prima	INDONESIA
Tantalum	Yanling Jincheng Tantalum & Niobium Co., Ltd.	CHINA
Tungsten	Lianyou Metals Co., Ltd.	TAIWAN PROVINCE OF CHINA
Tin	Magnu's Minerais Metais e Ligas Ltda.	BRAZIL
Tin	PT Artha Cipta Langgeng	INDONESIA
Tantalum	XinXing HaoRong Electronic Material Co., Ltd.	CHINA
Tungsten	Jiangxi Tonggu Non-ferrous Metallurgical & Chemical Co., Ltd.	CHINA
Tin	Resind Industria e Comercio Ltda.	BRAZIL
Tin	Tin Technology & Refining	UNITED STATES
Tin	White Solder Metalurgia e Mineracao Ltda.	BRAZIL
Tungsten	H.C. Starck Tungsten GmbH	GERMANY
Tungsten	A.L.M.T. Corp.	JAPAN
Tungsten	Niagara Refining LLC	UNITED STATES
Gold	Eco-System Recycling Co., Ltd. North Plant	JAPAN
Gold	Eco-System Recycling Co., Ltd. West Plant	JAPAN
Tantalum	FIR Metals & Resource Ltd.	CHINA
Tantalum	H.C. Starck Hermsdorf GmbH	GERMANY
Tantalum	Jiangxi Dinghai Tantalum & Niobium Co., Ltd.	CHINA

Metal	Smelter	Location
Tantalum	Jiangxi Tuohong New Raw Material	CHINA
Tantalum	Jiujiang Zhongao Tantalum & Niobium Co., Ltd.	CHINA
Tungsten	Jiangxi Xinsheng Tungsten Industry Co., Ltd.	CHINA
Tungsten	Jiangxi Yaosheng Tungsten Co., Ltd.	CHINA
Tantalum	QuantumClean	UNITED STATES
Tantalum	Resind Industria e Comercio Ltda.	BRAZIL
Gold	DSC (Do Sung Corporation)	REPUBLIC OF KOREA
Gold	T.C.A S.p.A	ITALY
Tin	HuiChang Hill Tin Industry Co., Ltd.	CHINA
Tungsten	Jiangxi Gan Bei Tungsten Co., Ltd.	CHINA
Tin	Thai Nguyen Mining and Metallurgy Co., Ltd.	VIETNAM
Tungsten	KGETS Co., Ltd.	REPUBLIC OF KOREA
Tantalum	Mitsui Mining and Smelting Co., Ltd.	JAPAN

附件 2：京东方半导体显示及物联网创新业务钴冶炼厂清单（2022 年）

Metal	Smelter	Location
Cobalt	Niihama Nickel Refinery, Sumitomo Metal Mining	JAPAN
Cobalt	SungEel HiTech Co., Ltd.	REPUBLIC OF KOREA
Cobalt	Murrin Murrin Nickel Cobalt Plant	AUSTRALIA
Cobalt	Gem (Jiangsu) Cobalt Industry Co., Ltd.	CHINA
Cobalt	Lanzhou Jinchuan Advanced Materials Technology Co., Ltd.	CHINA
Cobalt	Ganzhou Tengyuan Cobalt New Material Co., Ltd.	CHINA
Cobalt	Guangxi Yinyi Advanced Material Co., Ltd.	CHINA
Cobalt	Tianjin Maolian Science & Technology Co., Ltd.	CHINA
Cobalt	Zhejiang Huayou Cobalt Company Limited	CHINA
Cobalt	Umicore Finland Oy	FINLAND
Cobalt	Umicore Olen	BELGIUM
Cobalt	Quzhou Huayou Cobalt New Material Co., Ltd.	CHINA
Cobalt	Mine de Bou-Azzer	MOROCCO
Cobalt	Compagnie de Tifnout Tiranimine	MOROCCO
Cobalt	Guangdong Jiana Energy Technology Co., Ltd.	CHINA
Cobalt	Jiangsu Xiongfeng Technology Co., Ltd.	CHINA
Cobalt	Jingmen GEM Co., Ltd.	CHINA
Cobalt	Ganzhou Highpower Technology Co., Ltd.	CHINA
Cobalt	NORILSK NICKEL HARJAVALTA OY	FINLAND
Cobalt	New Era Group Zhejiang Zhongneng Cycle Technology Co., Ltd.	CHINA

Metal	Smelter	Location
Cobalt	Hunan Yacheng New Materials Co., Ltd.	CHINA
Cobalt	Hunan CNGR New Energy Science & Technology Co., Ltd.	CHINA
Cobalt	Cosmo Chemical, Ltd.	REPUBLIC OF KOREA
Cobalt	Kamoto Copper Company	CONGO, DEMOCRATIC REPUBLIC OF THE
Cobalt	Chemaf Etoile	CONGO, DEMOCRATIC REPUBLIC OF THE
Cobalt	La Compagnie de Traitement des Rejets de Kingamyambo S.A.	CONGO, DEMOCRATIC REPUBLIC OF THE
Cobalt	Ningbo Hubang New Material Co., Ltd.	CHINA
Cobalt	CoreMax Corporation	TAIWAN PROVINCE OF CHINA
Cobalt	Chizhou CN New Materials and Technology Co., Ltd.	CHINA
Cobalt	Zhejiang Greatpower Cobalt Materials Co., Ltd.	CHINA
Cobalt	Harima Refinery, Sumitomo Metal Mining	JAPAN
Cobalt	Guizhou CNGR Resource Recycling Industry Development Co., Ltd.	CHINA
Cobalt	Gangzhou Yi Hao Umicore Industry Co.	CHINA
Cobalt	Hunan Brunp Recycling Technology Co., Ltd.	CHINA
Cobalt	Smelter Not Listed	RUSSIAN FEDERATION
Cobalt	Smelter Not Listed	CANADA
Cobalt	Smelter Not Listed	PHILIPPINES
Cobalt	Smelter Not Listed	MADAGASCAR